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ABSTRACT

The Student Apprenticeship Linkage Program in Alabama was designed to bridge skill training programs in secondary schools with apprenticeship training programs in industry. The program was a cooperative demonstration program linking the Alabama State Department of Education, the Alabama Center for Quality and Productivity, and the U.S. Department of Labor's Bureau of Apprenticeship and Training to meet the work force needs of the state. During the project, high school students who had completed at least 1 year of vocational training in an apprenticeable trade became student apprentices during their senior year of school. After being screened by the industry apprenticeship screening committee, selected students participated in a cooperative education program in which they worked up to a maximum of 20 hours per week while in high school. Students were awarded credit for this training toward their total apprenticeship training program. Businesses participating were reimbursed one-half a student's wages, up to $2.25 per hour. After graduation from high school the student was expected to enter a full-time apprenticeship training program. During the 2-year program, 146 students participated in 30 different apprenticeable trades with 83 companies; about 75 percent completed the program and entered full-time apprenticeships. The greatest success of the program was with small businesses. Materials concerning the program were made available to other states. The greater part of the document consists of the appended Coordinator's Handbook for the program; other appendices include lists of training areas, participating businesses, and steering committee members; an outline of apprenticeship standards; a time chart; and two brochures. (KC)

ED328704

FINAL REPORT

STUDENT APPRENTICESHIP LINKAGE IN VOCATIONAL EDUCATION

STATE OF ALABAMA

COOPERATIVE DEMONSTRATION PROJECT
(CFDA NO. 84.199A)

AWARD NUMBER V199A90012

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STUDENT APPRENTICESHIP LINKAGE PROGRAM IN VOCATIONAL EDUCATION

INTRODUCTION:

The Alabama State Department of Education (Vocational Division) in cooperation with the Alabama Center for Quality and Productivity and the U. S. Department of Labor, Bureau of Apprenticeship and Training, conducted a Cooperative Demonstration Project (CFDA. 84.199A - Award Number V199A90012) funded through a grant awarded by the U. S. Department of Education. The title of the project is Student Apprenticeship Linkage in Vocation Education and was conducted from January 1, 1989 through June 30, 1990.

The Student Apprenticeship Linkage Program is designed to bridge skill training programs in secondary schools with apprenticeship training programs in industry. This program is a major initiative to return quality and prestige to Alabama's Vocational Education System and to meet the workforce needs of business and industry.

NEED FOR PROJECT:

Alabama's industrial complex is being jeopardized because of a growing skilled labor shortage. The average journeyperson in most high skill crafts and occupations is nearing retirement age. Also, the number of young people entering the workforce is declining. Therefore, the number of skilled workers being prepared to replace the retirees and to fill the new jobs being created by industry is inadequate.

Most students find it extremely difficult to enter high skilled occupations. Students need a career preparation path to high skilled occupations that is easy to identify and to enter. They need an opportunity to learn what it is like to work in a real work setting under real working conditions.

Traditionally, a very small percentage of women and minorities find their way into the high skilled crafts and precision occupations. Individuals in these two groups need special assistance in entering the highly skilled occupations.

Also, many small businesses do not participate in apprenticeship training programs either because of the high cost of training personnel or because they do not know how to establish a quality training program. However, if the small business is going to remain competitive in a world market, they must maintain a highly skilled work force.

PURPOSE:

The purpose of the Student Apprenticeship Linkage Program in Vocational Education is to facilitate the transition of students from high school into high technology occupations through the cooperative efforts of industry, labor, and education. This program will bridge skill training programs in secondary schools with apprenticeship training in industry.

OBJECTIVES:

1. Demonstrate a model for coordination between schooling and employment to minimize training time and optimize preparation for high technology occupations.

2. Provide a source of skilled workers for occupations which will have high demand and low supply in the work force of the year 2000.

3. Provide a mechanism for the significant involvement of community agencies and industry in the public education delivery system.

4. Enable employers, especially small businesses and industries, to participate in the development of apprentices without prohibitive training costs.

5. Provide a means for students to receive training on state-of-the art equipment without requiring excessive capital outlay by schools.

6. Increase the efficiency of preparing a skilled work force by providing early entry of students into apprenticeship programs.

7. Facilitate the entry of minorities, women, and other target groups into apprenticeship programs for high technology occupations.

8. Provide employers opportunity to assess student skills and potentials prior to major commitments of full apprenticeship salaries and permanent employment.

DESCRIPTION OF PROJECT:

Selected quality high school students that had completed at least one year of vocational training in the tenth or eleventh grade in an apprenticeable trade were eligible to participate in the program as student apprentices during their senior year of school. Each potential trainee was subject to screening and approval by the industry apprenticeship screening committee. After being selected for the program, the students participated in a cooperative education program in which they worked up to a maximum of 20 hours per week while in high school. Students were awarded credit for this training toward their total apprenticeship training program. For each student participating in the program, the industry or business was reimbursed one-half of the student's wages up to $2.25 per hour (Cooperative Demonstration Project Funds). After graduation from high school the student was expected to enter into a full-time apprenticeship training program.

The Student Apprenticeship Linkage Program provided selected students:

a. a year or more of skilled training in high school (10th or 11th grade)

b. a year of student-apprenticeship training while a high school senior,

c. advanced entry into a full-time apprenticeship training program, and

d. a third option upon graduating from high school. Until this time a student's options are either attend college or enter the work force. For those quality students that are not college bound, they can become involved in an apprenticeship training program in which they will receive their journeyman's certificate by the age of 21 or 22.

The Student Apprenticeship Linkage Program provided employers:

a. a source of trained workers for their apprenticeship programs,

b. a younger work force,

c. an opportunity to assess a student's skills and potential prior to major commitments of a full-time apprenticeship program, and

d. a means of offsetting some of the cost of apprenticeship training as one-half of the student's wages was reimbursed by the State Department of Education up to $2.25 per hour while the student is in high school.

This program aids the State of Alabama in that:

a. a young high quality work force is being trained according to industry standards,

b. as a result of this program, the State of Alabama, the Department of Education, and the Department of Labor are making a commitment to work with industry,

c. the program will help in recruiting new businesses to the State because a young high quality labor force will be available.

PLAN OF OPERATION:

The overall plan of the project was to provide training for students in high skill occupations through a school linkage program with apprenticeship training programs.

The project was coordinated through the Alabama State Department of Education in cooperation with the Alabama Center for Quality and Productivity and the U. S. Department of Labor, Bureau of Apprentice and Training. The Industry-Education Coordinator of the Alabama Center for Quality and Productivity served as project director.

A project steering committee was appointed by the State Superintendent of Education (See appendix). The Steering Committee established general guidelines for the project, regularly reviewed project activities and made recommendations for changes and improvement.

Five metropolitan areas of the State of Alabama (Birmingham, Tuscaloosa, Gadsden, Huntsville, and the Muscle Shoals area) were selected to begin the apprenticeship linkage program involving thirteen school systems. Orientation workshops were conducted in each area involving the local program coordinators, the local vocational directors, the local superintendents of education, and representatives of employers. The local educational agencies in cooperation with local businesses and industries operated the Student Apprenticeship Linkage Program in accordance with the standards of the Bureau of Apprenticeship and Training.

Selected student-apprentices that met the qualifications for the program worked part-time in a cooperative education type of schedule. The student attended school for part of the day, usually in the morning, and worked in the afternoon as a student apprentice. The project provided for reimbursement of one-half of the student's wages up to $2.25 per hour for a maximum of 20 hours per week during the students senior year of high school. The reimbursement was provided through a memorandum of agreement between the State Department of Education and the local industries. The local school agency appointed an apprenticeship coordinator that supervised the program. The coordinator visited each student on the job at least twice each grade reporting period.

In-service meetings were conducted in local school systems with all vocational personnel, including guidance counselors, to explain the student apprenticeship linkage program. Vocational personnel were urged to contact the industries in their area of training to determine the need for the program. Individual companies were then contacted about the program by the apprenticeship coordinator. If the company was interested in the program, the Bureau of Apprenticeship and Training was notified so that the training program could be properly certified. Once the program was certified, the student was registered with the Bureau of Apprenticeship and Training as a student apprentice and began receiving credit toward his/her certification in the skill area while completing the requirements for graduation from high school.

RESULTS:

* 146 students (1989 - 40 students; 1990 - 106 students) participated in 30 different apprenticeable trades with 83 companies (see appendix).

* The greatest success of the program was with small businesses. Since January, 1989, over 50 industries have been registered by the Bureau of Apprenticeship and Training for apprenticeship training as a direct result of the Student Apprenticeship Linkage Program. These companies did not have any type of a formalized training program until the Student Apprenticeship Linkage Program was implemented. By providing this assistance, it is helping the small business remain competitive in the world market.

* A workable model for coordination between schooling and employment to minimize training time and optimize preparation for high technology occupations has been demonstrated. This is evidenced by the State of Alabama providing $350,000 of state funds to continue the project for 1990-1991 fiscal year.

* For the purpose of the project, students completing high school and entering a full time apprenticeship training program were considered as successful placement in the program. Seventy three percent of the first group (1989) entered full time apprenticeship programs while seventy eight percent of the second group (1990) entered full time apprenticeship programs.

* The areas of highest demand in apprenticeship training were electricity/electronics, machinist, welding, computer peripheral, auto mechanics, and auto body repair. Training was conducted in industries on equipment that was considered state-of-the-art equipment which was not available in many of the school system such as CNC machines and electronic testing machines.

* Fifteen percent of the students participating in the apprenticeship linkage program were females. Also, ten percent of the students participating in the program were minority students.

* Brochures have been developed to provide information about the Student Apprenticeship Linkage Program in Vocational Education and concerning the requirements for an apprenticeship training program in industry Also, a Coordinator's Handbook for the apprenticeship linkage program was developed to provide guidelines for other school system to establish the program (see appendix)

* Information concerning the program has been shared with other states such as Texas, Mississippi, Tennessee, Georgia, South Carolina, North Carolina, and Florida. Presentations concerning the program has been made at the American Vocational Association meeting in Orlando, Florida, the National Association meeting of the State Occupational Information Coordinating Committee in Albuquerque, New Mexico, and to the Southern States Apprenticeship Conference in Montgomery (1989) and Huntsville (1990), Alabama.

CONCLUSION:

The Student Apprenticeship Linkage Program is a very successful means to bridge the gap between secondary school programs and the need for highly skilled workers in the workforce of industry. This program can be duplicated in other states.

APPENDIX I

LIST OF AREAS OF TRAINING

STUDENT APPRENTICESHIP LINKAGE PROGRAM

AREAS OF TRAINING

Furniture Designer	1
Machinist	29
Electrician	36
Carpenter	3
Tool & Die Maker	5
Auto Body Repairer	9
Welding	14
Auto Mechanics	7
Farm Equipment Mechanics	1
Air Conditioning - Refrigeration	4
Appliance Repair	1
Diesel Mechanics	1
Salesperson - Parts	1
Plumbing	1
Electronic Repair/Computers	1
Child Care	3
Dental Lab Technician	1
Graphic Design	2
Cook (Hotel Restaurant)	2
Medical Secretary	5
Nurse's Aide	2
Legal Secretary	1
Computer Peripheral	8
Electrical Sales Service Technician	2
Offset Press operator	1
Funeral Director/Embalmer	1
Dental Assistant	1
Retail Store Manager	1
Electrical Maintenance	1
Drafting	1

APPENDIX II

LIST OF PARTICIPATING BUSINESS

PARTICIPATING BUSINESSES AND INDUSTRIES
IN
THE STUDENT APPRENTICESHIP LINKAGE PROGRAM

	Company Name	Location	No. of Students
1.	American Automated Engineers	Rogersdale	2
2.	Norman Chevron Center	Tuscaloosa	1
3.	Ashlen Manufacturing Company	Tuscaloosa	1
4.	Mills Electric	Tuscaloosa	2
5.	Pro Steel Fabricators	Tuscaloosa	2
6.	Swain Machine Company	Woodville	1
7.	Standard Machine & Tool Company	Huntsville	1
8.	Hughes Electric	Huntsville	5
9.	General Equipment Company	Scottsboro	1
10.	Madison Electric	Madison	2
11.	Die-Matic Tool Company	Meridianville	5
12.	Bradford Electric	Huntsville	2
13.	Electric Installations	Huntsville	4
14.	McCullar Steel & Supply	Tuscaloosa	3
15.	Double "D" Body Shop	Section	1
16.	Job-1	Scottsboro	1
17.	W-W Construction	Decatur	1
18.	Noble Trucking Company	Scottsboro	1
19.	Wells & Tate Electric Company	Meridianville	3
20.	AMI Brookwood Hospital	Birmingham	9
21.	Irvin & Boyd Air Conditioning & Insulation	Adamsville	2
22.	Nelda Stephen's Chevrolet	Florence	1
23.	Craft Electric	Birmingham	2
24.	Warren Tool and Die	Gadsden	2
25.	Southside Academy	Gadsden	3
26.	Gadsden Tool, Inc.	Gadsden	8
27.	Pierson Chevrolet	Gadsden	3
28.	Engineering Sales	Gadsden	1
29.	Singleton Plumbing	Gadsden	1
30.	Livingston Heating & Cooling	Gadsden	1
31.	Coosa Electric	Gadsden	3
32.	Hosmer Moving & Storage	Gadsden	1
33.	Software Connection	Gadsden	1
34.	Lawrence Pontiac - Cadillac	Gadsden	1
35.	Futures Electric & Construction Company	Bessemer	2
36.	Tidwell Dental Labs	Birmingham	1
37.	Master Trailer Builders	Gadsden	1
38.	Mayer Electric	Birmingham	5
39.	Ace Paint & Body Shop	Hartselle	2
40.	Story Signs	Phenix City	1
41.	Sunshine Electric	Birmingham	1
42.	Riverside Buick - Cadillac	Phenix City	1
43.	Harris Machine	Phenix City	1
44.	Pitts Trailers	Phenix City	2

Participating Businesses & Industries

	Company Name	Location	No. of Students
45.	Belcher Electric	Phenix City	2
46.	Patrick H. Smith, CPA	Birmingham	1
47.	Troy's Honda Parts	Tuscaloosa	1
48.	Charles Townsend Ford	Tuscaloosa	1
49.	Jones Welding	Birmingham	2
50.	Electro Mechanical	Cordova	1
51.	The Printing House	Hueytown	2
52.	Fayette Printing	Fayette	1
53.	Alabama Tool Company	Gadsden	6
54.	Essex Corporation	Huntsville	1
55.	Thornton Service	Huntsville	1
56.	King's Valley Chapel	Oneonta	1
57.	Redden Machine Company	Attalla	3
58.	Mack's Paint & Body	Hartselle	1
59.	Synder General Corporation	Scottsboro	1
60.	Haney Company, Inc.	Glencoe	1
61.	Dill Engineering	Florence	1
62.	Gillentine Body Shop	Red Bay	1
63.	United Implement Manufacturing	Red Bay	1
64.	Dr. Gordon Isbell (dental assistant)	Gadsden	1
65.	Firestone Store	Gadsden	2
66.	Banner Machine	Huntsville	1
67.	Jones Light, Furniture & Appliance	Gadsden	1
68.	Childress Company	Mobile	1
69.	Allied Mechanical Contractors	Chattanooga, TN	1
70.	Canterbury Electric	Birmingham	2
71.	J & K Electric	Birmingham	1
72.	Thomason Electric	Birmingham	1
73.	Star Electrical Contractor	Birmingham	1
74.	Boyette Construction	Moulton	1
75.	North Alabama Machine Shop	Flat Rock	1
76.	Armstrong Body Shop	Red Bay	1
77.	Thornton Welding	Tuscaloosa	1
78.	Sheffield Electrical	Hoover	1
79.	Brainbridge, Mims & Rogers	Birmingham	1
80.	Business First	Birmingham	1
81.	Alabama Tool & Die	Gadsden	1
82.	Robertsdale Air Conditioning	Robertsdale	1
83.	Wrico, Inc.	Mobile	1

APPENDIX III

STEERING COMMITTEE MEMBERS

STEERING COMMITTEE

Student Apprenticeship Linkage In Vocational Education

Mr. Robert E. Dodson
Vocational Administrator
Huntsville Center for Technology
2800 Drake Avenue
Huntsville, AL 35805
Phone: 532-3086

Mr. Charles Findlay
Vocational Supervisor
Birmingham City Board of Ed.
410 13th Street South
Birmingham, AL 35213
Phone: 583-4625

Mr. Mike Bradford
Bradford Electric Co., Inc.
920 Windchester Rd.
Huntsville, AL 35811
Phone: 859-3413

Mr. Al McCullough, Business Agent &
Apprenticeship Coordinator of Brick
Layers & Allied Crafts of Local #1
P. O. Box 320237
Birmingham, AL 35232
Phone: 595-3264

Mr. Joe Causey
Academy of Precision Arts
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East Gadsden, AL 35903
Phone:

Dr. Dennis Phillips
Academy of Precision Arts
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Phone:

Mr. Phillip Fields
Industrial Training Coordinator
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105 Burke Avenue, S.E.
Attalla, AL 35954
Phone: 538-3312

Mr. Troy Sellers
Owner of Troy's Honda Parts
P. O. Box 85
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Phone: 556-7321

Mr. Jack White
Vocational Administrator
Tuscaloosa City AVC
1300 37th St., E.
Tuscaloosa, AL 35401
Phone: 759-3649

Mr. William D. Fox
Alabama State Director
U.S. Department of Labor
Bureau of Apprenticeship and Trng.
Berry Building - Suite 102
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Birmingham, AL 35203
Phone: 731-1308

Dr. Stephen B. Franks
State Director
Vocational Education Services
State Department of Education
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Phone: 261-5198

APPROVED: Wayne Teague
Wayne Teague
State Superintendent

APPENDIX IV

APPRENTICESHIP AND TRAINING STANDARDS

APPRENTICESHIP AND TRAINING STANDARDS

for

In Cooperation With

BUREAU OF APPRENTICESHIP AND TRAINING

EMPLOYMENT AND TRAINING ADMINISTRATION

U. S. DEPARTMENT OF LABOR

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STANDARDS OF APPRENTICESHIP

1. DEFINITIONS

a. "Apprentice" means any person who has signed an agreement to learn a trade by these standards.

b. "Employer-Sponsor" means:

____

____

c. "Registration Agency" means the Bureau of Apprenticeship and Training, U. S. Department of Labor.

d. "Standards" or "Standards of Apprenticeship" shall mean this entire document.

e. "Gender." Any reference to gender embodied in these standards shall apply with equal force to the opposite gender.

2. QUALIFICATIONS FOR APPRENTICESHIP

a. Apprentices shall be carefully selected from applicants of legal working age, which in no case shall be less than ______years of age.

b. Applicants must be physically able to perform the work of the trade.

c. Applicants must have completed the ________grade of school, or GED equivalent.

3. TERM OF APPRENTICESHIP

The term of apprenticeship necessary to become a qualified journeyperson for each trade covered by these standards requires a minimum of hours as specified in the Trade Schedule.

4. EQUAL OPPORTUNITY PLEDGE

The recruitment, selection, employment, and training of apprentices, during their apprenticeship shall be without discrimination because of race, color, religion, national origin, or sex. Local program sponsors will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30, as Amended.

5. RELATED INSTRUCTION

a. Each apprentice agrees to pursue a course of study related to his/her trade as prescribed by the sponsor and approved by the Bureau of Apprenticeship and Training. Each apprentice shall attend at least 144 hours of classroom related study per year, or the equivalent, as determined by the sponsor.

b. Hours spent in related training shall not be considered as hours of work unless related study is required during regular hours of work. The sponsor will assume the cost of related training.

6. APPRENTICESHIP AGREEMENT

The Apprenticeship Agreement shall be signed by the apprentice (if a minor, his/her parent or guardian) and the employer. At least three (3) copies of the Agreement will be sent to the Bureau of Apprenticeship and Training for registration. The Bureau of Apprenticeship and Training will keep one (1) copy of the Agreement and return two (2) copies to the employer. The employer will keep one (1) copy and give the apprentice a copy.

7. PROBATIONARY PERIOD

a. All apprentices employed in accordance with these standards shall be subject to a try-out or probationary period, not to exceed ____________ ____________. The apprentice shall be registered with the Bureau of Apprenticeship and Training before the beginning employment. During this probationary period, annulment of the Apprenticeship Agreement may be made by the sponsor upon request of either party.

b. The Bureau of Apprenticeship and Training shall be advised of the termination of such Agreements.

8. RESPONSIBILITIES OF THE APPRENTICE

a. To perform diligently and faithfully the work of the trade and other pertinent duties assigned by the sponsor in accordance with the provisions of these standards.

b. To respect the property of the employer and/or sponsor.

c. To regularly attend, and satisfactorily complete, the required hours of related instruction as provided in these standards of apprenticeship.

d. To maintain such records of work experience and training as may be required by the sponsor.

9. RESPONSIBILITIES OF THE SPONSOR

a. To carry out the provisions of these standards.

b. To pass on the qualifications of applicants for apprenticeship.

c. To see that all apprentices are placed under an approved and properly executed written Apprenticeship Agreement and that it is submitted to the Bureau of Apprenticeship and Training for registration.

d. To notify the Bureau of Apprenticeship and Training of all changes in apprentice status, including suspensions and cancellations of Apprenticeship Agreements and completions of apprenticeship.

e. To see that all apprentices, upon satisfactory completion of the term of apprenticeship, are issued an appropriate Certificate of Completion of Apprenticeship from the Bureau of Apprenticeship and Training.

f. To see that the apprentices are rotated from job process to job process in accordance with the intent of these standards and in accordance with the schedule of work experience included herein.

10. PERIODIC EXAMINATION

Before each period of advancement, the apprentice's progress is evaluated by the sponsor. Such evaluation shall include the apprentice's job performance and related instruction performance. If the work progress or related instruction progress is found unsatisfactory, the apprentice may be permitted to continue on a probationary status or required to repeat a process or processes, or the Agreement may be terminated.

11. HOURS OF WORK FOR THE APPRENTICES

a. The hours of work and working conditions, overtime, vacations and other fringe benefits for apprentices shall be the same as those of the journeyperson. The apprentice shall not be required or permitted to work such hours as will interfere with his/her attendance at classroom job related instruction, except in cases of emergency.

b. The Apprenticeship and Training Representative servicing the program shall be notified when an apprentice is working outside of the geographic area defined in these standards.

12. CREDIT FOR PREVIOUS EXPERIENCE

If the apprentice has had previous experience in the trade, credit may be given toward the completion of his/her apprenticeship. He/she shall be paid the wage rate for the period to which such credit advances him/her.

13. SUPERVISION OF PROGRESS

The apprentice will be furnished complete and qualified supervision through all phases of the training period by a competent journeyperson while actually engaged in work on the job.

14. CONTINUITY OF EMPLOYMENT

The sponsor intends and expects to give the apprentice continuous employment. However, the sponsor reserves the right to suspend the apprentice whenever conditions of business make that necessary. Any apprentice whose term of apprenticeship is suspended for such reason will be given the opportunity of re-employment before any additional apprentice is employed.

15. CONSULTANTS

The consultant to this program will be a representative of the Bureau of Apprenticeship and Training.

16. ADJUSTING DIFFERENCES

In case of dissatisfaction by any party to this Agreement, either has the right and privilege of appealing to the Bureau of Apprenticeship and Training for advice and counsel.

17. ACCIDENT PREVENTION

The employer shall instruct the apprentice in safe and healthful work practices and shall insure that the apprentice is trained in facilities and other environments that are in compliance with either the Occupational Safety and Health Standards promulgated by the Secretary of Labor under Public Law 91-596, dated December 29, 1970, or State standards that have been found to be at least as effective as the Federal standards.

18. CERTIFICATE OF COMPLETION OF APPRENTICESHIP

Upon the successful completion of the apprenticeship and after the apprentice has passed such examination as may be required, the sponsor shall request of the Bureau of Apprenticeship and Training a Certificate of Completion of Apprenticeship, attach appropriate signature thereto, and see that the apprentice is awarded the certificate.

19. MODIFICATION OF THESE STANDARDS

a. These standards may be amended at any time by action of the sponsor, subject to approval of the Bureau of Apprenticeship and Training.

b. Such modification shall not alter Apprenticeship Agreements then in effect without the written consent of all parties to such Agreements.

20. CONFORMANCE WITH STATE AND FEDERAL LAWS

No provisions of this program shall be construed as permitting the violation of any State or Federal law or regulation.

21. APPRENTICE ACTIONS

The Bureau of Apprenticeshp and Training will be notified of all apprentice actions including completions, cancellations, suspensions, and reinstatements approved by the sponsor. Such notices shall include the dates of the actions and, in the case of terminations, the reason therefor.

22. APPRENTICE RECORDS

The employer shall maintain a record regarding each apprentice, showing the attendance, work experience, related instruction, and progress.

23. JURISDICTION AREA

The sponsor's area of operation is ______________________________

____.

TRADE SCHEDULE

(Use a separate sheet for each trade)

For the trade of ____

To be appended to Apprenticeship Policy Statement for the

____
(Name of Employer)

Term of apprenticeship: ________ years (approximately ______ hours)

Ratio of apprentices to journeypersons shall be one apprentice to the first journeyworker employed and one apprentice to each three journeyworkers thereafter.

APPRENTICE WAGE SCHEDULE

(In percent of Journeyworker's rate, or in dollars and cents)

(Construction trade(s) in percentages)

1st 6 mos. (1000 hours): _____% or $______
2nd 6 mos. (1000 hours): _____% or $______
3rd 6 mos. (1000 hours): _____% or $______
4th 6 mos. (1000 hours): _____% or $______
5th 6 mos. (1000 hours): _____% or $______
6th 6 mos. (1000 hours): _____% or $______
7th 6 mos. (1000 hours): _____% or $______
8th 6 mos. (1000 hours): _____% or $______

Journeyworker's rate as of ________________________: $______

Hours per Week: _____

SCHEDULE OF WORK PROCESSES

Apprenticeship Agreement
Bureau of Apprenticeship and Training

U.S. Department of Labor
Employment and Training Administration

Varning: This agreement does not constitute a certification nder Title 29, CFR, Part 5 for the employment of the apprentice on ederally financed or assisted construction projects. Current ertifications must be obtained from the Bureau of Apprenticeship nd Training or the recognized State Apprenticeship Agency hown below.

The program sponsor and apprentice agree to the terms of Apprenticeship Standards incorporated as part of this Agreement. The sponsor will not discriminate in the selection and training of the apprentice in accordance with the Equal Opportunity Standards in Title 29 CFR Part 30.3, and Executive Order 11246.

rivacy Act Statement: The information requested herein is used for pprenticeship program statistical purposes and may not be otherwise lisclosed without the express permission of the undersigned pprentice. Privacy Act of 1974 (P.L. 93-579).

This agreement may be terminated by either of the parties, citing cause(s), with notification to the registration agency, in compliance with Title 29, CFR, Part 29.6.

Part A: To be completed by sponsor

1. Sponsor (Name and address) Program No. ______

2a. Trade (The work processes listed in the standards are part of this agreement)

2b. DOT symbol

3. Term (Hrs., Mos., Yrs.)

4. Probationary period (Hrs., Mos., Yrs.)

5. Credit for previous experience (Hrs., Mos., Yrs.)

6. Term remaining (Hrs., Mos., Yrs.)

8. Date apprenticeship begins (Indenture date)

9. Related instruction

a. Number of hours per year ______

b. Method
☐ Classroom
☐ Shop
☐ Correspondence

c. Source
☐ Voc. Ed.
☐ Sponsor
☐ Other

d. Apprentice wages for related instruction
☐ Will be paid
☐ Will not be paid

10Apprenticeship wages: The apprentice schedule of pay shall be listed for each advancement period.

	Period 1	2	3	4	5	6	7	8	9	10
b. Term (Hrs., Mos., Yrs.)										
c. Percent										

11a. Signature of committee (If applicable) Date Signed

11b. Signature of committee (If applicable) Date Signed

12. Signature of authorized representative (Employer/Sponsor) Date Signed

13. Name and address of sponsor designee to receive inquiries (If applicable)

Part B: To be completed by apprentice

14. Name (Last, first, middle), and address (No., Street, City, County, State, Zip Code)

Social Security number

15. Date of birth (Mo, day, Yr)

16. Sex (X one)
☐ Male
☐ Female

17. Apprenticeship school linkage
☐ Yes
☐ No

18. Race/Ethnic Group (X one)
☐ White (Not Hispanic)
☐ Black (Not Hispanic)
☐ Hispanic
☐ Am. Indian or Alaska Native
☐ Asian or Pacific Islander
☐ Information not available
☐ Not elsewhere classified

19. Veteran Status
☐ Vietnam era veteran (8/15/64 to 5/7/75)
☐ Other veteran
☐ Non Veteran

C # ______

20. Highest education level (X one)
☐ 8th grade or less
☐ 9th to 12th grade
☐ GED
☐ High School Graduate

21. Signature of apprentice Date

22. Signature of parent/guardian (if minor) Date

Part C: To be completed by registration agency

23. Registration agency and address

24. Signature (Registration agency) Date registered

BEST COPY AVAILABLE

SCHEDULE OF RELATED INSTRUCTIONS

APPROVAL SHEET

APPROVED AND ACCEPTED FOR:

(Name of Company)

(Address)

(Signature of Official)	(Title of Official)	(Date)
(Type Name of Official)	(Type Title of Official)	(Date)

Apprenticeship and Training Representative
Bureau of Apprenticeship and Training
U. S. Department of Labor

(Date)

Registry No.:

(Date)

Registered as incorporating the basic standards of apprenticeship recommended by the Federal Committee on Apprenticeship:

Bureau of Apprenticeship & Training
U. S. Department of Labor
Date:

The United States Department of Labor

Bureau of Apprenticeship and Training
Certificate of Registration

VOID

*Registered as part of the National Apprenticeship Program
in accordance with the basic standards of apprenticeship
established by the Secretary of Labor*

Elizabeth Dole
Secretary of Labor

James D Van Erden
Director, Bureau of Apprenticeship and Training

Date

Registration No.

The United States Department of Labor

Bureau of Apprenticeship and Training

Certificate of Completion of Apprenticeship

This is to certify that

VOID

has completed an apprenticeship for the occupation

under the sponsorship of

in accordance with the basic standards of apprenticeship established by the Secretary of Labor

Date Completed

Elizabeth Dole

Secretary of Labor

James D Van Erden

Director, Bureau of Apprenticeship and Training

APPENDIX V

TIME CHART

TIME CHART

FY 1989 COOPERATIVE DEMONSTRATION PROGRAM (CFDA No. 84.199A)

AWARD NUMBER : V199A90012

RECIPIENT : State Department of Education
Division of Vocational Educaiton Services
State Office Building
Montgomery, Alabama 36130

CONTACT PERSON : Dwight Williams, Industry-Education Coordinator
Alabama Center for Quality & Productivity
P.O. Box 2216
Decatur, Alabama 35609-2216
(205) 353-3102 Ext. 281

PROJECT TITLE : Student Apprenticeship Linkage in Vocational Education

---

PURPOSE:

The purpose of the project is to facilitate the transition of students from high school into high technology occupations through the cooperative efforts of industry, labor, and education.

OBJECTIVES:

1. Demonstrate a model for coordination between schooling and employment to minimize training time and optimize preparation for high technology occupations.

2. Provide a source of skilled workers for occupations which will have high demand and low supply in the work force of the year 2000.

3. Provide a mechanism for the significant involvement of community agencies and industry in the public education delivery system.

4. Enable employers, especially small businesses and industries, to participate in the development of apprentices without prohibitive training costs.

5. Provide a means for students to receive training on state-of-the art equipment without requiring excessive capital outlay by schools.

6. Increase the efficiency of preparing a skilled work force by providing early entry of students into apprenticeship programs.

7. Facilitate the entry of minorities, women, and other target groups into apprenticeship programs for high technology occupations.

8. Provide employers opportunity to assess student skills and potentials prior to major committments of full apprenticeship salaries and permanent employment.

ACTIVITIES:

January, 1989

1. Employ or appoint project director.
2. Conduct workshops with local vocational coordinators and vocational directors.
3. Establish Apprenticeship Linkage Steering Committee.
4. Identify potential employers and students for the apprenticeship program.
5. Develop procedures for emplementation.
6. Initiate Student Apprenticeship Training Program.
7. Develop forms for emplementation of program.
8. Develop brochures for Student Apprenticeship Program.

February, 1989

1. Visit potential employers.
2. Visit local coordinators to set up apprenticeship program.
3. Hold Steering Committee meeting.
4. Conduct inservice meetings with local vocational teachers.
5. Develop procedure for reimbursement of student apprenticeship wages to industry from the State Finance Department.
6. Attend Cooperative Demonstration Project Conference in Washington, D.C.
7. Attend Southeast Regional Apprenticeship Training Conference in Montgomery, Alabama, to present the project to the conference assembly.

March, 1989

1. Continue to visit with local coordinators.
2. Continue to conduct inservice meetings in local educational systems.
3. Assess student progress.
4. Continue to identify prospective employers and students.
5. Present apprenticeship linkage project to the Texas Educational Agency and the Texas Apprenticeship and Training Committee in Austin, Texas.

April, 1989

1. Conduct a joint meeting with the Apprenticeship Linkage Steering Committee and the State Technical Committee on apprenticeship training.
2. Present Apprenticeship Linkage Program at the State Vocational Administrators Conference.
3. Conduct inservice meetings in local educational systems.
4. Continue to identify prospective students and employers.
5. Continue to visit local coordinators and assess student progress.

May, 1989

1. Conduct an inservice meeting with all the coordinators involved in Apprenticeship Linkage Program.
2. Attend Apprenticeship Forum on apprenticeship training in Raleigh, North Carolina.
3. Continue to identify potential employers and students for apprenticeship program.
4. Develop brochure on apprenticeship training.

June, 1989

1. Conduct inservice meeting with local educational systems concerning the apprenticeship program.
2. Execute a six-month apprenticeship review.
3. Develop a progress report for apprenticeship program.
4. Conduct a follow-up of apprenticeship trainees.

July, 1989

1. Continue to identify prospective students and employers.
2. Conduct Steering Committee meeting.
3. Revise implementation procedures.

August, 1989

1. Report progress to the State Technical Committee on apprenticeship training.
2. Continue to identify prospective students and employers.
3. Attend the State Trade and Industrial Education Teachers Summer Conference and explain the Student Apprenticeship Linkage Program in Vocational Education.
4. Attend the National NOICC Conference and present the Apprenticeship Linkage Program to the conference assembly.

September, 1989

1. Continue to identify prospective students and employers for apprenticeship program.
2. Execute agreements between employers and State Department of Education.
3. Execute trainee acceptance procedures.
4. Assess student progress.
5. Visit local coordinators to assist in setting up apprenticeship training program.

October, 1989

1. Visit apprenticeship training sites.
2. Conduct Apprenticeship Steering Committee meeting.
3. Continue to identify prospective students and employers for apprenticeship training.

November, 1989

1. Report progress of student Apprenticeship Linkage Program to the State Technical Committee on apprenticeship training.
2. Continue to visit local apprenticeship programs.
3. Conduct local inservice meetings on apprenticeship training.

December, 1989

1. Attend American Vocational Association meeting in Orlando, Florida, and make presentation concerning Studend Apprenticeship Linkage Program.
2. Assess student progress in apprenticeship program.
3. Visit local apprenticeship programs.

January, 1990

1. Conduct Steering Committee meeting.
2. Execute six-month apprenticeship review.
3. Visit local programs.
4. Continue to identify students and employers for apprenticeship program.

February, 1990

1. Develop progress report on trainees.
2. Report progress to the State Technical Committee.
3. Visit coordinators and apprenticeship worksites.

March, 1990

1. Assess trainees progress.
2. Visit apprenticeship coordinators and worksites.
3. Report progress to local BAT officials.

April, 1990

1. Conduct Steering Committee meeting.
2. Develop transportability plan.
3. Visit apprenticeship coordinators and worksites.
4. Assess student progress.

May, 1990

1. Assess progress of students.
2. Continue to develop transportability plan.
3. Apprenticeship Linkage Coordinators workshop.

June, 1990

1. Conduct Steering Committee meeting.
2. Assess student progress.
3. Report progress to State Technical Committee.
4. Conduct follow-up of student apprentices.
5. Develop progress reports.
6. Conduct final evaluation of project and deliver to appropriate officials.

APPENDIX VI

BROCHURE - STUDENT APPRENTICESHIP LINKAGE IN VOCATIONAL EDUCATION

STUDENT
APPRENTICESHIP LINKAGE
IN
VOCATIONAL EDUCATION

Sponsored by:

- Alabama Center for Quality and Productivity

In cooperation with:

- Alabama State Department of Education, Division of Vocational Education Services

- Bureau of Apprenticeship and Training, U.S. Department of Training

STUDENT APPRENTICESHIP LINKAGE PROGRAM

What is a Student Apprenticeship Linkage Program?

The purpose of the Student Apprenticeship Program is to provide a linkage between vocational education programs and industry apprenticeship training programs. It is an innovative approach to education and training which allows high school seniors with at least one year of vocational training in an apprenticeable trade to become a registered apprentice while completing their secondary school education.

STUDENT PARTICIPATION

I. ***Student Requirements for Participation.***

- Must be a senior in high school
- Must have completed at least one year of vocational training in an apprenticeable trade area
- Must have a good background in math
- Must have the desire and ability to complete an apprenticeship program
- Must pass a pre–test in the chosen field
- Must be screened and selected by an industry screening committee
- Students will attend regular academic classes in their home school. Students will work on the Co–op program of the school system and will attend related study classes for their program.

II. ***Benefits to the Student***

- Begin apprenticeship training as senior in high school
- Train under skilled professionals
- Good pay and job security while learning

- Registered by the U.S. Department of Labor, Bureau of Apprenticeship and Training
- Upon completion of apprenticeship program, the student will receive a certificate of completion from the U.S. Department of Labor that is accepted nationwide.

EMPLOYER PARTICIPATION

I. ***Requirements for an Employer to Participate***

- Must have a registered apprenticeship training program with the U.S. Department of Labor, Bureau of Apprenticeship and Training. Offices are located in Huntsville, Birmingham and Mobile.
- Must be willing to employ high school seniors for 20 hours per week.

II. ***Benefits to the Employer***

- A pool of apprentices which have vocational training
- The apprenticeship agreement is designed for the specific needs of industry and focuses on the skilled occupational training of the student
- A direct link between education and industry
- Federal certification as an employment training site
- Enable employers to evaluate a student's on–the–job performance prior to making a permanent employment commitment.

EDUCATIONAL SYSTEM PARTICIPATION

I. ***School System***

- Select quality students for participation
- Provide supervision of student apprentice
- Training plan
- Provide related study for students
- Complete necessary forms for implementation of program

II. ***Alabama Center for Quality and Productivity***

- Provide overall supervision of program
- Reimburse employers for services rendered on a 50% wage–cost basis up to $2.25/hour.

EXAMPLES OF APPRENTICESHIP AREAS

Examples of Apprenticeship Areas

- There are over 800 apprenticeable trades registered with the U.S. Department of Labor.
- Automotive Body Repairman
- Automotive Mechanics
- Bricklayer
- Butcher – Meat Cutter
- Cabinetmaker
- Carpenter
- Computer Operator
- Diesel Mechanics
- Draftsman
- Electrician – Electronics Technician
- Machinist
- Maintenance Mechanic – Repairman
- Plumber
- Printing Pressmen
- Sheetmetal Worker
- Tool and Die Maker

FOR MORE INFORMATION, CONTACT:

- Bureau of Apprenticeship and Training
  U. S. Department of Labor
  Don Fox, State Director
  Berry Building, Suite 102
  2017 2nd Avenue North
  Birmingham, Alabama 35203
  (205)731-1308

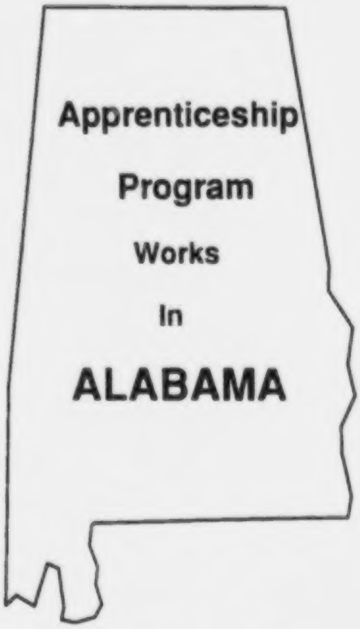
  Huntsville: (205)895-5400
  Lou Johnson

  Mobile: (205)690-2169
  W. M. (Bill) Allen

- Alabama Center for Quality and Productivity
  Dwight Williams,
  Industry-Education Coordinator
  P.O. Box 2216
  Decatur, Alabama 35609-2216
  (205)353-3102, Ext. 281

- State Department of Education
  Vocational Educational Services
  Dr. Stephen Franks, State Director
  Gordon Persons Building
  50 North Ripley Street
  Montgomery, Alabama 36130
  (205)242-9111

- Local Vocational Director
- Local High School and/or Vocational Counselor
- Local School Coordinator
- Various labor organizations



The apprenticeship program shall conform to all federal, state and local laws and regulations. Selection for participation in the program shall be without discrimination on the basis of race, color, religion, handicap, national origin, or sex.

APPENDIX VII

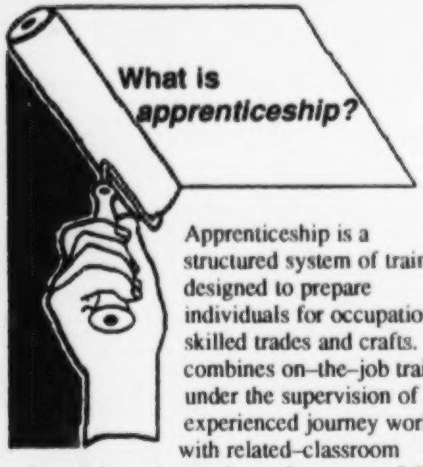
BROCHURE - APPRENTICESHIP TRAINING

Apprenticeship

Training

Enter
into a program
that lets you

'Earn While You Learn'



What is apprenticeship?

Apprenticeship is a structured system of training designed to prepare individuals for occupations in skilled trades and crafts. It combines on–the–job training under the supervision of experienced journey workers with related–classroom instruction. Apprentices who successfully complete the prescribed number of hours of training in an apprenticeship program become certified skilled craft workers.

What does apprenticeship offer?

Workers who complete apprenticeship programs can expect to hold good jobs at good pay. Their skills are a source of personal satisfaction as well as employment security. Statistics show that graduates earn higher wages, have more stable work records, and are promoted sooner and more often than workers who have not been trained through apprenticeship programs.

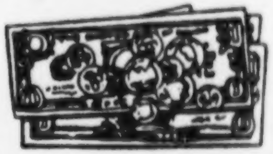
What is needed to qualify for apprenticeship?

Qualifications vary according to the program. However, all apprenticeship programs require applicants to be at least 16 years old and physically able to perform the job. In addition, most sponsors may require a high school diploma or equivalent certificate (GED), and/or the completion of some mathematics and science courses. Some construction and manufacturing trades require considerable physical stamina, vocational education or industrial arts courses, or some related work experience.

How long does the training last?

Length of training varies from one to five years, depending on the occupation and is determined by standards adopted by industry.

How much are apprentices paid?



Apprentices are full–time paid employees who work a regular 40–hour week and earn while learning. The more they learn, the higher the pay. Generally apprentices are paid 40 to 50 percent of a journey worker's wages to start. As they increase the job skills, their wages are increased at regular intervals. At the successful completion of the term of apprenticeship they become journey workers and receive full pay for their skills.

What types of occupations can be learned through apprenticeship?

Apprenticeable occupations can be found in such industries as electronics, constructions, service, metal working, public administration, medical and health care. There are approximately 800 apprenticeable occupations currently recognized by the Bureau of Apprenticeship and Training, U.S. Department of Labor, such as aircraft mechanics, appliance repairers, auto body repairers, auto mechanics, boilermakers, bricklayers, carpenters, chefs, computer equipment operators, decorators, dental assistants, electricians, heavy equipment operators, machinists, medical laboratory techicians, opticians, painters, plumbers, tool makers and welders.

What is related–classroom instruction?

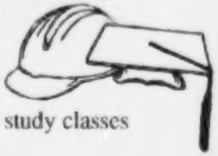
Usually classes are taken outside working hours three to six hours a week for a minimum of 144 hours each year. Examples are classes on safety, mathematics, blueprint reading, applied English and other technical courses needed for the specific occupation.

How are apprentices selected?

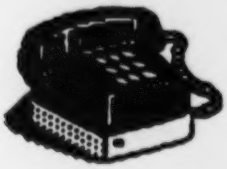
Apprentices are selected on the basis of qualification, without regard to race, color, religion, sex or national origin. The actual selection is done by members of a local apprenticeship committee or a sponsoring employer. Joint apprenticeship committees represent both management and labor and are composed of persons with considerable experience in the industry. Committee members select applicants in accordance with an approved unbiased selection procedure. The apprenticeship committee determines the need for apprentices and sets the minimum standards of education, experience and training.

What is a Student Apprenticeship Linkage Program in Vocational Education?

The purpose of the Student Apprenticeship Linkage Program is to provide a linkage between vocational education programs and industry apprenticeship training programs. It is an innovative approach to education and training which allows high school seniors with at least one year of vocational training in an apprenticeable trade to become a registered apprentice while completing their secondary school education. Students will attend regular academic classes in their home school, work on the Co–op program of the school system and attend related study classes for their program.



Where can additional information be obtained?



- Bureau of Apprenticeship and Training
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  Berry Building, Suite 102
  2017 2nd Avenue North
  Birmingham, Alabama 35203
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  P.O. Box 2216
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  (205)242-9111

- Local Vocational Director
- Local High School and/or Vocational Counselor
- Local School Coordinator
- Various labor organizations

America

Needs Skilled Workers for

High Technology Occupations

APPENDIX VIII

COORDINATOR'S HANDBOOK

STUDENT
APPRENTICESHIP LINKAGE
IN
VOCATIONAL EDUCATION

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
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HANDBOOK

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P. O. Box 2216
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State Department of Education
Division of Vocational Education
Services
State Office Building
Montgomery, Alabama 36130

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APPRENTICESHIP TRAINING

APPRENTICESHIP TRAINING

WHAT IS APPRENTICESHIP?

Apprenticeship is a structured system of training designed to prepare individuals for occupations in skilled trades and crafts. It combines on-the-job training under the supervision of experienced journey workers with related classroom instruction. Apprentices who successfully complete the prescribed number of hours of training in an apprenticeship program become certified skilled craft workers.

WHAT DOES APPRENTICESHIP OFFER?

Workers who complete apprenticeship programs can expect to hold good jobs at good pay. Their skills are a source of personal satisfaction as well as employment security. Statistics show that graduates earn higher wages, have more stable work records, and are promoted sooner and more often than workers who have not been trained through apprenticeship programs.

WHAT IS NEEDED TO QUALIFY FOR APPRENTICESHIP?

Qualifications vary according to the program. However, all apprenticeship programs require applicants to be at least 16 years old and physically able to perform the job. In addition, most sponsors may require a high school diploma or equivalent certificate (GED), and/or the completion of some mathematics and science courses. Some construciton and manufacturing trades require considerable physical stamina, vocational education or industrial arts courses, or some related work experience.

HOW LONG DOES THE TRAINING LAST?

Length of training varies from one to five years, depending on the occupation and is determined by standards adopted by industry.

HOW MUCH ARE APPRENTICES PAID?

Apprentices are full-time paid employees who work a regular 40-hour week and earn while learning. The more they learn, the higher the pay. Generally apprentices are paid 40 to 50 percent of a journey worker's wages to start. As they increase the job skills, their wages are increased at regular intervals. At the successful completion of the term of apprenticeship they become journey workers and receive full pay for their skills.

WHAT TYPES OF OCCUPATIONS CAN BE LEARNED THROUGH APPRENTICESHIP?

Apprenticeable occupations can be found in such industries as electronics, constructions, service, metal working, public administration, medical and health care. There are approximately 800 apprenticeable occupations currently recognized by the Bureau of Apprenticeship and Training, U.S. Department of Labor, such as aircraft mechanics, appliance repairers, auto body mechanics, auto mechanics, boilermakers, bricklayers, carpenters, chefs, computer equipment oeprators, decorators, dental assistants, electricians, heavy equipment operators, machinists, medical laboratory technicians, opticians, painters, plumbers, tool makers and welders.

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Usually classes are taken outside working hours three to six hours a week for a minimum of 144 hours each year. Examples are classes on safety, mathematics, blueprint reading, applied English and other technical courses needed for the specific coccupation.

HOW ARE APPRENTICES SELECTED?

Apprentices are selected on the basis of qualification, without regard to race, color, religion, sex or national origin. The actual selection is done by members of a local apprenticeship committee or a sponsoring employer. Joint apprenticeship committees represent both management and labor and are composed of persons with considerable experience in the industry. Committee members select applicants in accordance with an approved unbiased selection procedure. The apprenticeship committee determines the need for apprentices and sets the minimum standards of education, experience and training.

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The purpose of the Student Apprenticeship Linkage Program is to provide a linkage between vocational education programs and industry apprenticeship training programs. It is an innovative approach to education and training which allows high school seniors with at least one year of vocational training in an apprenticeable trade to become a registered apprentice while completing their secondary school education. Students will attend regular academic classes in their home school, work on the Co-op program of the school system and attend related study classes for their program.

STUDENT APPRENTICESHIP LINKAGE
IN
VOCATIONAL EDUCATION

STUDENT APPRENTICESHIP LINKAGE IN VOCATIONAL EDUCATION

STATE OF ALABAMA

PURPOSE:

The purpose of the Student Apprenticeship Linkage Program in Vocational Education is to facilitate the transition of students from high school into high technology occupations through the cooperative efforts of industry, labor, and education. This program will bridge skill training programs in secondary schools with apprenticeship training in industry.

OBJECTIVES:

1. Demonstrate a model for coordination between schooling and employment to minimize training time and optimize preparation for high technology occupations.

2. Provide a source of skilled workers for occupations which will have high demand and low supply in the work force of the year 2000.

3. Provide a mechanism for the significant involvement of community agencies and industry in the public education delivery system.

4. Enable employers, especially small businesses and industries, to participate in the development of apprentices without prohibitive training costs.

5. Provide a means for students to receive training on state-of-the art equipment without requiring excessive capital outlay by schools.

6. Increase the efficiency of preparing a skilled work force by providing early entry of students into apprenticeship programs.

7. Facilitate the entry of minorities, women, and other target groups into apprenticeship programs for high technology occupations.

8. Provide employers opportunity to assess student skills and potentials prior to major commitments of full apprenticeship salaries and permanent employment.

DESCRIPTION:

Selected high school students that have completed at least one year of vocational training in the tenth or eleventh grade in an apprenticeable trade will be eligible to participate in the program as student apprentices during their senior year. Their training during this time will count toward their total apprenticeship training.

The program will provide selected students:

a. a year or more of skilled training in high school (10th or 11th grade),
b. a year of student-apprenticeship training while a high school senior, and
c. advanced entry into a full time apprenticeship training program.

The program will provide employers:

a. a source of trained workers for their apprenticeship program,
b. a younger work force,
c. an opportunity to assess a student's skills and potential prior to major committments of a full time apprenticeship program, and
d. a means of offsetting some of the cost of apprenticeship training as one-half of the students' wages will be reimbursed by the State Department of Education up to $2.25 per hour while the student is in high school.

PROCEDURES:

The State Department of Education will allocate 200 student apprenticeship slots in five areas of the state. The students selected for the program must have successfully completed one year of occupational training in the area in which the student-apprenticeship training will be provided and must be a senior in high school. Each potential trainee will be subject to screening and approval by the industry apprenticeship screening committee. After being selected for the program, the students will participate in a ooperative education program in which they will work up to a maximum of 20 hours per week while in high school. For each student participating in the program, the industry or business will be reimbursed one-half of the student's wages up to $2.25 per hour. After graduation from high school, the student will be expected to enter into a full-time apprenticeship training program.

OUTCOMES/RESULTS/PRODUCTS:

The program is expected to be a model for apprenticeship linkage programs. All students progressing through the student apprenticeship program and entering into a full-time apprenticeship program will be considered successful program completors.

PROCEDURES FOR IMPLEMENTATION
OF
STUDENT APPRENTICESHIP LINKAGE PROGRAM
IN
VOCATIONAL EDUCATION

STUDENT APPRENTICESHIP TRAINING

PROCEDURES FOR IMPLEMENTATION

I. TEACHER-COORDINATOR

A. Select quality students with at least one year or more of training in an apprenticeship training area. Select those students who are capable and willing to complete an apprenticeship training program.

B. Make contact with local industries that are certified to provide apprenticehsip training. If an industry is not certified, contact the Department of Labor representative to handle the certification.

C. After making contact with an interested industry and locating a qualified student, the student will be screened by an industry apprenticeship committee selected by the U.S. Department of Labor. If selected to enter the apprenticeship program, the student can be placed in an apprenticeship co-op program by the teacher-coordinator. Related instruction should be provided in one of the following three ways:

1. The student can attend the U.S. Department of Labor apprenticeship class of related instruction.
2. The student can attend the related instruction class of the teacher-coordinator.
3. The student can return to the area vocational school one day per week and attend the regular vocational class in which he/she is enrolled.

D. State standards for cooperative education programs shall be followed. The teacher-coordinator shall visit each student on the job at least twice each reporting period.

II. U.S. DEPARTMENT OF LABOR

A. The U.S. Department of Labor representative will be responsible for certifying any business that is not registered as an apprenticeship training company.

B. The U.S. Department of Labor representative will work with the industry to provide an industry apprenticeship screening committee. The committee will determine how much credit the student will be allowed toward his apprenticeship training based on his/her past training.

C. The U.S. Department of Labor representative, industry, and educational institution will work together to provide apprenticeship related training.

III. STATE DEPARTMENT OF EDUCATION

A. The State Department of Education will provide a stipend of up to $2.25 per hour to the industry as reimbursement to the employer for the student's salary. This will be handled on a contract basis. The teacher-coordinator will sign the invoice to verify the number of hours worked by the student.

FORMS AND CONTRACTS
FOR
STUDENT APPRENTICESHIP LINKAGE PROGRAM
IN
VOCATIONAL EDUCATION

REPORTS AND CONTRACTS

FOR

STUDENT APPRENTICESHIP LINKAGE PROGRAM

A. Memorandum of Agreement

Mail to:

Dr. Stephen Franks, State Director
Division of Vocational Education Services
Gordon Persons Building
50 N. Ripley Street
Montgomery, AL 36130

B. Apprenticeship Agreement

This report should be submitted to the U. S. Department of Labor, Bureau of Apprenticeship and Training representative at the beginning of the training period.

William D. Fox, State Director
U. s. Department of Labor, BAT
Berry Building - Suite 102
2017 2nd Avenue North
Birmingham, Alabama 35203
(205) 731-1308

Louis (Lou) Johnson
Apprenticeship Training Representative
U. S. Department of Labor, BAT
U. S. Post Office
101 Holmes Avenue
Huntsville, Alabama 35801
(205) 895-5400

W. M. Allen
Apprenticeship Training Representative
U. S. Department of Labor, BAT
951 Government STreet, Room 416
Mobile, Alabama 36604
(205) 690-2169

C. Training Agreement

This report should be filed in the coordinator's office with a copy placed in the vocational teacher's file at the beginning of the training period.

D. Student Participation Report

This report should be mailed as soon as a student is placed in the program. Mail to:

Dwight Williams
Industry-Education Coordinator
Alabama Center for Quality and Productivity
P. O. Box 2216
Decatur, Alabama 35609-2216
(205) 353-3102, Ext. 281

E. Coordinator's Report - Time Sheet

This report is to be completed monthly and is due by the 5th of each month. Mail to:

Dwight Williams
Industry-Education Coordinator
Alabama Center for Quality and Productivity
P. O. Box 2216
Decatur, Alabama 35609-2216
(205) 353-3102, Ext. 281

F. Invoice for Student Apprenticeship Linkage Program

This form should be submitted monthly to:

Dr. Stephen Franks, State Director
Division of Vocational Education Services
Gordon Persons Building
50 N. Ripley Street
Montgomery, AL 36130

The invoice should be signed by the same company representative that signed the Memorandum of Agreement.

G. Termination Report

Submit this report for any student that withdraws from the Student Apprenticeship Linkage Program. Mail to:

Dwight Williams
Industry-Education Coordinator
Alabama Center for Quality and Productivity
P. O. Box 2216
Decatur, Alabama 35609-2216
(205) 353-3102, Ext. 281

ALABAMA STATE DEPARTMENT OF EDUCATION
Division of Vocational Education Services
Responsibility Unit Management Information Services

Contract No. ____________

MEMORANDUM OF AGREEMENT

THIS AGREEMENT, entered into this ________ day of ______________________ by and between the ALABAMA STATE DEPARTMENT OF EDUCATION and ____
Name of Employer Mailing Address
is in accordance with the resolution passed by the Alabama State Board of Education on September 19, 1967, authorizing the State Superintendent of Education to enter into various contracts and has the following stipulations:

The purpose of this project is to facilitate the transition of students from school into high technology occupations through the cooperative efforts of industry, labor and education with school apprenticeship-linkage programs. This project will expand two pilot efforts in the state and develop a model apprenticeship-linkage program. This program will bridge skill training programs in secondary schools with apprenticeship training through a student apprenticeship process. Selected students who are high school seniors and who have completed a specified amount of a high school occupational program will begin earning apprenticeship credit through an industry-education cooperative program that leads to full-time employment.

Reimbursement will be made for one-half of student stipends not to exceed $2.25 reimbursement per hour estimated as follows:

Student's Name	Hours per Week		No. of Weeks		Rate per Hour		Amount
		X		X		=	
		X		X		=	
		X		X		=	
		X		X		=	
		X		X		=	

Funds are available for this purpose from the federal project entitled "Student Apprenticeship Linkage in Vocational Education." Claims for payment are to be submitted monthly on forms provided by the State Department of Education. It is agreed that records will be retained for five years and will be made available for review and audit. Claims will be made from these records.

The total amount of this agreement shall not exceed $____________ from Fund 308718, Program 111183, Organization 150300.

This agreement shall be for the period July 1, 1989 through June 30, 1990. This agreement may be terminated by either party upon receipt of a 30-day written notification.

ALABAMA STATE DEPARTMENT OF EDUCATION

____
Stephen B. Franks, Director
Division of Vocational Education Services

____
William J. Rutherford
Assistant State Superintendent of Education
Administrative and Financial Services

____
Wayne Teague
State Superintendent of Education

____
NAME OF EMPLOYING AGENCY

____
Company Representative

____
Company Representative's Title

____
Federal Identification Number

____
Department of Labor Apprenticeship Number

APPROVED:

____
Guy Hunt, Governor
State of Alabama

____
G. Robin Swift, Jr.
State Finance Director

Apprenticeship Agreement

Bureau of Apprenticeship and Training

U.S. Department of Labor

Employment and Training Administration

Warning: This agreement does not constitute a certification under Title 29, CFR, Part 5 for the employment of the apprentice on Federally financed or assisted construction projects. Current certifications must be obtained from the Bureau of Apprenticeship and Training or the recognized State Apprenticeship Agency shown below.

The program sponsor and apprentice agree to the terms of Apprenticeship Standards incorporated as part of this Agreement. The sponsor will not discriminate in the selection and training of the apprentice in accordance with the Equal Opportunity Standards in Title 29 CFR Part 30.3, and Executive Order 11246.

Privacy Act Statement: The information requested herein is used for apprenticeship program statistical purposes and may not be otherwise disclosed without the express permission of the undersigned apprentice. Privacy Act of 1974 (P.L. 93-579).

This agreement may be terminated by either of the parties, citing cause(s), with notification to the registration agency, in compliance with Title 29, CFR, Part 29.8.

Part A: To be completed by sponsor

1. Sponsor (Name and address) Program No. ____________

2a. Trade (The work processes listed in the standards are part of this agreement)

2b. DOT symbol

3. Term (Hrs., Mos., Yrs.)

4. Probationary period (Hrs., Mos., Yrs.)

5. Credit for previous experience (Hrs., Mos., Yrs.)

6. Term remaining (Hrs., Mos., Yrs.)

7. Date apprenticeship begins (indenture date)

8. Related instruction

a. Number of hours per year ____________

b. Method
- ☐ Classroom
- ☐ Shop
- ☐ Correspondence

c. Source
- ☐ Voc. Ed.
- ☐ Sponsor
- ☐ Other

d. Apprentice wages for related instruction
- ☐ Will be paid
- ☐ Will not be paid

9. Apprenticeship wages: The apprentice schedule of pay shall be listed for each advancement period.

	Period 1	2	3	4	5	6	7	8	9	10
b. Term (Hrs., Mos., Yrs.)										
c. Percent										

10a. Signature of committee (if applicable) Date Signed

10b. Signature of committee (if applicable) Date Signed

11. Signature of authorized representative (Employer/Sponsor) Date Signed

12. Name and address of sponsor designee to receive complaints (if applicable)

Part B: To be completed by apprentice

13. Name (Last, first, middle), and address (No., Street, City, County, State, Zip Code)

Social Security number

14. Date of birth (Mo, day, Yr)

15. Sex (X one)
- ☐ Male
- ☐ Female

16. Apprenticeship school linkage
- ☐ Yes
- ☐ No

17. Race/Ethnic Group (X one)
- ☐ White (Not Hispanic)
- ☐ Black (Not Hispanic)
- ☐ Hispanic
- ☐ Am. Indian or Alaska Native
- ☐ Asian or Pacific Islander
- ☐ Information not available
- ☐ Not elsewhere classified

18. Veteran Status
- ☐ Vietnam era veteran (8/15/64 to 5/7/75)
- ☐ Other veteran
- ☐ Non Veteran

C # ____________

19. Highest education level (X one)
- ☐ 8th grade or less
- ☐ 9th to 12th grade
- ☐ GED
- ☐ High School Graduate

20. Signature of apprentice Date

21. Signature of parent/guardian (if minor) Date

Part C: To be completed by registration agency

22. Registration agency and address

23. Signature (Registration agency) Date registered

ETA 671
(Rev. 12/88)

TRAINING AGREEMENT
FOR
PRE-APPRENTICE SCHOOL LINKAGE PROGRAM

Student's Name ______________________ Birthday ____________ Age ______

Student's Address ______________________ Telephone ____________

Student's Current Occupational Objective ______________________

Name of School ______________________ System ____________

Name of Training Station ______________________ Telephone ____________

Address of Training Station ______________________

Name and Job Title of Training Sponsor ______________________

Date Training Period Begins ______________________ Ends ____________

This training agreement briefly outlines the responsibilities of the STUDENT, PARENTS, EMPLOYER, and the TEACHER-COORDINATOR. Section II of this document is entitled "Instructional/Training Plan" and consists of tasks and competencies for the specific student's occupational objective.

PARENTS OR GUARDIAN

1. The parents approve and agree that the student-apprentice may participate in the ____________ (Program Area) at the employer listed above.
2. The parents will encourage the student-apprentice to effectively carry out his/her duties and responsibilities both in the classroom and on-the-job.
3. The parents will be responsible for the conduct of their child.
4. The parent/guardian waives any claims and agrees to indemnify the employer/company from any third party claims other than those covered by workmen compensation in the State of Alabama.

STUDENTS

1. The student-apprentice will comply with the rules and regulations of the employer.
2. The student-apprentice is expected to observe the same regulations which apply to other employees of the firm.
3. The student-apprentice is expected to adhere to all policies and regulations as set forth by school administration and the program coordinator.
4. The student-apprentice will be required to be covered by a 24 hour school day insurance policy or its equivalent.

TEACHER-COORDINATOR

1. Classroom instruction will be closely correlated with on-the-job training, the ultimate objective being preparation of the student-apprentice for his/her chosen occupational objective.
2. The student's employment may be terminated by the teacher-coordinator and employer when it serves the best interest of the student-apprentice.
3. The teacher-coordinator will cooperate with the employer in an effort to plan classroom instruction which will correlate with the training plan prepared for the individual student-apprentice. (See Section II of this document.)
4. The teacher-coordinator will visit employer once or more during each grading period to observe and evaluate student-apprentice's progress.

EMPLOYER

1. The employer recognizes that the above name student-apprentice is enrolled in a cooperative education program designed to prepare him/her for a career in ______________________.
2. The employer will provide supervision and instruction in each of the applicable tasks listed on Section II of this document in order to assist the student-apprentice in acquiring those competencies necessary for success in his/her chosen occupational objective.
3. Student-apprentice progress and advancement will be evaluated periodically by the employer and the apprentice committee.
4. The employer does not discriminate on grounds of race, color, handicap, sex, religion, creed, national origin or age.
5. The employer will adhere to wage-and-hour, child labor and all other Federal, State and local laws pertaining to employment of a student-apprentice.

____________________ (Parent or Guardian)	____________________ (Employer)	____________________ (Student)
____________________ (Teacher-Coordinator)	____________________ (School Administrator)	____________________ (Date)

____
U. S. Department of Labor Representative

____
Apprentice Committee Representative

STUDENT APPRENTICESHIP LINKAGE TRAINING

STUDENT PARTICIPATION REPORT

School System______________________________ Phone______________

Address____

School_____________________________________ Phone______________

Address____

Vocational Director________________________ Phone______________

Apprenticeship Coordinator_________________ Phone______________

Student Name_______________________________ Phone______________

Address____

Area of Training____

Training Station (Company)_________________ Phone______________

Address____

President, Owner, etc.____

Name and Job Title of Training Supervisor______________________

Date Training Period Begins________________ Ends_______________

Approx. No. of Hours of Work/Week__________ Wages/Hour_________

Where is related study being conducted?________________________

Time of Related Study Class____________________________________

Number of hours of related study/week__________________________

Name of instructor for related study___________________________

______________________________ ______________________________ __________

Apprenticeship Coordinator Vocational Director Date

(Mail to Dwight Williams, Industry-Education Coordinator, Alabama Center for Quality and Productivity, P. O. Box 2216, Decatur, Alabama 35609-2216) Complete this form upon placing a student into the apprenticeship program.

STUDENT APPRENTICESHIP LINKAGE PROGRAM

TIME SHEET

MONTH: ____________

NAME: ______________________ POSITION: ____________________

SCHOOL SYSTEM: ______________________ SCHOOL: ____________________

Day	Activities	Amount of Time
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

Employee's Signature Date

Supervisor's Signature Date

ES-2 (SALP)

Contract No. ____________________

ALABAMA STATE DEPARTMENT OF EDUCATION

STUDENT APPRENTICESHIP LINKAGE PROGRAM

CLAIM FOR REIMBURSEMENT

for Wages Paid ______________ through ______________.

INSTRUCTIONS: Submit one copy as soon as possible after the end of each month to the State Department of Education, Division of Administrative and Financial Services, Gordon Persons Building, 50 North Ripley Street, Montgomery, AL 36130. Information reported must be taken directly from books of accounts and is subject to verification by audit. Amount to be reimbursed is one-half of hourly rate up to $2.25 per hour.

Student's Name	Social Security Number	Actual No. of Hours Worked	Hourly Wage	Total Actual Wages Paid For This Period	Amount To Be Reimbursed
1.					
2.					
3.					
4.					
5.					
6.					
Contract Amount $ ________ Previously Paid $ ________				Total Amount This Claim	

I hereby certify that this information has been taken directly from the company books of accounts and is, to the best of my knowledge, complete and correct and funds were expended in accordance with the contract.

____
Company Name

____
Signature of Company Representative

____
Title

____
Signature of School Linkage Coordinator

STUDENT APPRENTICESHIP LINKAGE PROGRAM
TERMINATION REPORT

Please submit the following information concerning any student that withdraws from the Student Apprenticeship Linkage Program.

Student't Name ______________________________ Phone ______________

Address ____

School System ____

School Name ______________________________ Phone ______________

School Address ____

School Apprenticeship Coordinator ______________________________

Name of Training Station (Company) _____________________________

Address ____

Area of Training ____

Beginning Date of Training ______________________________________

Ending Date of Training ____

Please indicate below why the student withdrew from the Apprenticeship Linkage Program. Please be specific.

____

____

____

____

____

____

Send the above information to Dwight Williams, Industry-Education Coordinator, ACQP, P. O. Box 2216, Decatur, AL 35609-2216

MISCELLANEOUS INFORMATION FOR STUDENT APPRENTICESHIP LINAKGE PROGRAM IN VOCATIONAL EDUCATION

BUREAU OF APPRENTICESHIP AND TRAINING
OFFICIALLY RECOGNIZED APPRENTICEABLE OCCUPATION LIST

AMS	DOT CODE	OCCUPATION TITLE	TERM	NS	BAT
0860	730281010	ACCORDIAN MAKER	048	0	1
0861	860381010	ACOUSTICAL CARPENTER	048	0	1
0862	150047010	ACTOR (AMUSE. & REC.)	024	1	1
0990	637261034	AIR & HYDRONIC BALAN. TECH	036	0	1
0686	620281010	AIR-CON MECH AUTO SER	012	1	1
0002	637261010	AIR-COND INSTALLER WINDOW	036	0	1
0864	693381010	AIRCRAFT LAY-OUT WORKER	048	0	1
0865	806381010	AIRCRAFT MECH, ARMAMENT AI	048	1	1
0003	825381010	AIRCRAFT MECH,ELECTRICAL	048	1	1
0866	862381010	AIRCRAFT MECH,PLUMB & HYD	048	1	1
0863	632261010	AIRCRAFT-ARMAMENT MECH GOV	048	1	1
0867	714281010	AIRCRAFT-PHOTOGRAPH-EQUIP	048	0	1
0005	621281014	AIRFRAME & POWER PLNT MECH	048	1	1
0868	849381010	AIRPLANE COVERER (AIRCRFT)	048	0	1
0004	621261010	AIRPLANE INSPECTOR	036	0	1
0869	769281010	AIRPLANE WOODWORKER	036	1	1
0870	379162010	ALARM OPERATOR (GOV SERV)	012	0	1
0007	785261010	ALTERATION TAILOR	024	0	1
0724	355374010	AMBULANCE ATTENDANT (EMT)	012	1	1
0871	159224010	ANIMAL TRAINER (AMUSE REC)	030	0	1
0105	840381640	ARCH. COATINGS FINISHER	036	1	1
0531	373267640	ARSON & BOMB INVESTIGATOR	024	1	1
0011	713261010	ARTIFICIAL-GLASS-EYE MAKER	060	1	1
0012	713261014	ARTIFICIAL-PLASTIC-EYE MKR	060	1	1
0872	853663010	ASPHALT-PAVING MACHINE OP	036	1	1
0876	806361014	ASSEMBER-INSTALLER, GENER	024	1	1
0873	806381022	ASSEMBLER, AIRCRAFT, POWER	024	0	1
0874	806381026	ASSEMBLER, AIRCRAFT, STRUC	048	1	1
0875	806381030	ASSEMBLER, ELECTRO-MECHAN	048	0	1
0877	801381010	ASSEMBLER, METAL BUILDING	024	1	1
0015	806381038	ASSEMBLY MECH EXPER AIRCRF	048	1	1
0878	633261010	ASSEMBLY TECHNICIAN	024	1	1
0903	651585010	ASSISTANT PRESS OPERATOR	024	0	1
0879	194262010	AUDIO OPERATOR	024	1	1
0880	729281010	AUDIO-VIDEO REPAIRER	024	0	1
0779	575462010	AUGER PRESS OPR, MAN CONTR	024	0	1
0836	620261034	AUTO COOLNG SYS DIAG TECH	024	1	1
0027	620281018	AUTO-MAINT-EQUIP	048	0	1
0784	620381010	AUTO-RADIATOR MECHANIC	024	1	1
0821	638261010	AUTOMATED EQUIP ENGR-TECH	048	0	1
0021	822281010	AUTOMATIC-EQU TECH TEL	048	1	1
0023	620261010	AUTOMOBILE MECHANIC	048	1	1
0881	620261014	AUTOMOBILE TESTER AUTO SER	048	0	1
0639	780381010	AUTOMOBILE UPHOLSTERER	036	1	1
0024	807381010	AUTOMOBILE-BODY REPAIRER	048	1	1
0638	620261018	AUTOMOBILE-REPAIR-SERV EST	048	0	1
0882	721281010	AUTOMOTIVE-GEN-&-START REP	024	0	1
0464	823281010	AVIONICS TECHNICIAN	048	1	1
0028	526381010	BAKER (BAKE PROD)	036	1	1
0776	313381010	BAKER (HOTEL & REST)	036	1	1
0883	313381014	BAKER, PIZZA (HOTEL & RES)	012	0	1
0029	629281010	BAKERY-MACHINE MECH	036	0	1
0640	142061010	BANK-NOTE DESIGNER	060	0	1
0030	330371010	BARBER	024	1	1
0884	572382010	BATCH-AND-FURNACE OPERATOR	048	1	1
0885	727381014	BATTERY REPAIRER	024	0	1
0886	413161010	BEEKEEPER (AGRIC.)	048	0	1
0887	970681010	BEN-DAY ARTIST	072	0	1
0031	735381010	BENCH HAND (JEWELRY)	024	0	1
0033	653685010	BINDERY WORKER	048	1	1
0888	719261010	BIOMEDICAL EQUIPMENT TECH	048	1	1
0035	610381010	BLACKSMITH	048	1	1
0889	716681010	BLOCKER&CUTTER CONTACT LENS	012	0	1
0036	860381018	BOATBUILDER, WOOD	048	1	1
0815	950382010	BOILER OPERATOR (ANY IND)	048	1	1
0038	805361010	BOILERHOUSE MECHANIC	036	1	1
0039	805361014	BOILERMAKER FITTER	048	0	1
0040	805261014	BOILERMAKER I	048	1	1
0041	805381010	BOILERMAKER II MECH	036	1	1
0047	977381010	BOOK BINDER	060	1	1
0890	753381010	BOOTMAKER, HAND	012	0	1
0891	735681010	BRACELET & BROOCH MAKER	048	0	1
0892	620281026	BRAKE REPAIRER AUTO. SERV	024	0	1
0706	861381026	BRICKLAYER,FIREBRICK & REF	048	1	1
0052	861381018	BRICKLAYER-CONSTRUCTION	036	1	1
0051	861381014	BRICKLAYER	048	0	1
0893	770261010	BRILLIANDEER-LOPPER JEWELR	036	0	1
0662	525381014	BUTCHER, ALL-ROUND	036	1	1
0894	316681010	BUTCHER, MEAT (HOTEL & RE)	036	0	1
0054	529362010	BUTTERMAKER (DAIRY PROD.)	024	0	1
0055	660280010	CABINETMAKER	048	1	1
0056	821361010	CABLE INSTALLER-REPAIRER	036	0	1
0058	829361010	CABLE SPLICER	048	1	1
0059	822361010	CABLE TESTER (TEL. & TEL.)	048	0	1
0895	019281010	CALIBRATION LABORATORY TEC	048	1	1
0062	714281014	CAMERA REPAIRER	024	1	1
0790	899281010	CANAL-EQUIPMENT MECHANIC	024	0	1
0065	529361014	CANDY MAKER	036	0	1
0641	739381010	CANVAS WORKER	036	1	1
0642	622381014	CAR REPAIRER LOCO	048	1	1
0896	620281034	CARBURETOR MECHANIC AUTO	048	0	1
0897	683582010	CARD CUTTER, JACQUARD	048	0	1
0898	680380010	CARD GRINDER (ASBESTOS PR)	048	0	1
0067	860381022	CARPENTER	048	1	1

BUREAU OF APPRENTICESHIP AND TRAINING
OFFICIALLY RECOGNIZED APPRENTICEABLE OCCUPATION LIST

AMS	DOT CODE	OCCUPATION TITLE	TERM	HS	BAT
0068	860281010	CARPENTER, MAINTENANCE	048	1	1
0762	860381034	CARPENTER, MOLD	072	0	1
1009	860381561	CARPENTER, PILEDRIVER	048	1	1
0069	860381042	CARPENTER, ROUGH	048	1	1
0070	860281014	CARPENTER, SHIP WATER TRAN	048	0	1
0899	929381010	CARPET CUTTER (RET. TR.)	012	0	1
0071	864381010	CARPET LAYER	036	0	1
0037	141081010	CARTOONIST, MOTION PICTURE	036	1	1
0042	761281010	CARVER, HAND	048	0	1
0072	633281010	CASH-REGISTER SERVICER	036	0	1
0043	653360010	CASING-IN-LINE SETTER (PRT	048	0	1
0073	739481010	CASKET ASSEMBLER	072	0	1
0074	502381010	CASTER (JEWELRY)	024	0	1
0044	502482010	CASTER (NONFER. MTL ALLOY)	024	0	1
0046	844681010	CELL MAKER (CHEM.)	012	0	1
0075	844364010	CEMENT MASON	024	1	1
0076	822361014	CENT-OFFICE INSTALLER TEL	048	1	1
0077	822281014	CENTRAL-OFFICE REPAIRER	048	1	1
0049	704381010	CHASER (JEWELRY; SILVERWAR	048	0	1
0078	529361018	CHEESEMAKER	024	0	1
0791	559382018	CHEMICAL OPERATOR III	036	0	1
0969	008261010	CHEMICAL-ENGINEERING TECH	048	0	1
0050	022261010	CHEMICAL-LABORATORY TECHNI	048	0	1
0053	018167010	CHIEF OF PARTY (PROFESS.)	048	0	1
0057	558260010	CHIEF OPERATOR (CHEM.)	036	0	1
0840	359342540	CHILD CARE DEV SPECIALIST	024	0	1
0849	899364010	CHIMNEY REPAIRER	012	0	1
0060	955382010	CLARIFYING-PLANT OPER(TEX)	012	0	1
0081	142061014	CLOTH DESIGNER	048	0	1
0609	639281014	COIN-MACH-SERVICE REPR	036	1	1
0084	970381010	COLORIST, PHOTOGRAPHY	024	0	1
0013	141081014	COMMERCIAL DESIGNER	048	0	1
0061	829261010	COMPLAINT INSPECTOR (LIGHT	048	0	1
0086	627261010	COMPOSING-ROOM MACHINIST	072	1	1
0087	973381010	COMPOSITOR	048	1	1
0817	213382010	COMPUTER-PERIPHERAL-EQ-OP	012	0	1
0336	620261022	CONST-EQUIP-MECHANIC	048	1	1
0904	712381014	CONTOUR WIRE SPEC DENTURE	048	0	1
0066	630381010	CONVEYOR-MAINTENANCE MECHO	024	0	1
0090	315361010	COOK (ANY IND)	024	1	1
0663	313361014	COOK (HOTEL & REST)	036	1	1
0722	313381026	COOK, PASTRY (HOTEL & RES)	036	1	1
0091	862281010	COPPERSMITH (SHIP & BOAT)	048	1	1
0094	518381014	COREMAKER	048	1	1
0095	863381010	CORK INSULATOR, REFRIG PLT	048	0	1
0851	372667018	CORRECTION OFFICER	012	0	1
0920	820361010	CORROSION-CONTROL FITTER	048	0	1
0096	332271010	COSMETOLOGIST	024	1	1
0991	512662010	CUPOLA TENDER	036	1	1
0314	785261014	CUSTOM TAILOR (GARMENT)	048	0	1
1008	959361010	CUSTOMER SERVICE RERESENTAT	036	0	1
0097	781384010	CUTTER, FABRICS & MATERIAL	024	0	1
0080	500381010	CYLINDER GRINDER (PRT&PUB)	060	1	1
0677	651362010	CYLINDER-PRESS OPERATOR	048	0	1
0099	629281018	DAIRY EQUIPMENT REPAIRER	036	0	1
0082	298381010	DECORATOR (ANY IND.)	048	0	1
0100	740381010	DECORATOR (GLASS MFG.)	048	0	1
0101	079371010	DENTAL ASSISTANT	012	1	1
0102	712281010	DENTAL CERAMIST	024	0	1
0650	829261014	DENTAL-EQUIP INSTALLER AN	036	0	1
0103	712381018	DENTAL-LABORATORY TECH	036	1	1
0107	788281010	DESIGN & PATTERNMKR SHOE	024	0	1
0106	017261014	DESIGN DRAFTER, ELECTROMEC	048	0	1
0108	017261018	DETAILER	048	0	1
0083	770281010	DIAMOND SELECTOR (JEWELRY)	048	0	1
0085	633281014	DICTATING-TRANS-MACH SERV	036	0	1
0113	007161010	DIE DESIGNER	048	1	1
0114	601381010	DIE FINISHER	048	0	1
0115	601381014	DIE MAKER JEWELRY	048	0	1
0654	739381018	DIE MAKER PAPER GOODS	048	0	1
0668	601281010	DIE MAKER, BENCH, STAMPING	048	1	1
0118	601280010	DIE MAKER, STAMPING	036	0	1
0119	601280014	DIE MAKER, TRIM	048	1	1
0939	601280018	DIE MAKER, WIRE DRAWING	036	0	1
0120	601381018	DIE POLISHER (WIRE)	012	0	1
0121	612360010	DIE SETTER (FORGING)	024	0	1
0122	601280022	DIE SINKER	048	1	1
0124	625281010	DIESEL MECHANIC	048	1	1
0093	625261010	DIESEL-ENGINE TESTER	048	0	1
0763	077167010	DIETETIC INTERN	024	0	1
0820	187167030	DIRECTOR, FUNERAL	024	0	1
0970	159067014	DIRECTOR, TELEVISION	024	0	1
0098	142051010	DISPLAY DESIGNER (PROF&KIN)	048	0	1
0324	298081010	DISPLAYER, MERCHANDISE	012	0	1
0104	630381014	DOOR-CLOSER MECHANIC	036	0	1
0126	001261010	DRAFTER, ARCHITECTURAL	048	1	1
0018	017281022	DRAFTER, AUTOMOTIVE DESIGN	048	0	1
0109	018261010	DRAFTER, CARTOGRAPHIC	048	0	1
0128	005281010	DRAFTER, CIVIL	048	1	1
0129	017261026	DRAFTER, COMMERCIAL	048	1	1
0130	017261030	DRAFTER, DETAIL	048	1	1
0131	003281010	DRAFTER, ELECTRICAL	048	0	1
0995	003281014	DRAFTER, ELECTRONIC	048	1	1
0133	017261034	DRAFTER, HEATING & VENTILA	048	0	1

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0134	001261014	DRAFTER, LANDSCAPE	048	0	1
0135	014281010	DRAFTER, MARINE	048	1	1
0136	007281010	DRAFTER, MECHANICAL	048	1	1
0111	017261038	DRAFTER, PLUMBING	048	0	1
0139	005281014	DRAFTER, STRUCTURAL	036	1	1
0140	007261022	DRAFTER, TOOL DESIGN	048	1	1
0141	018261014	DRAFTER, TOPOGRAPHICAL	048	1	1
0019	017281026	DRAFTR,AUTO DESGN LA	048	0	1
0957	850683018	DRAGLINE OPERATOR	012	0	1
0117	850663010	DREDGE OPERATOR (CONST,MIN)	012	0	1
0144	785361010	DRESSMAKER	048	0	1
0125	930482010	DRILLING-MACHINE OPERATOR	036	0	1
0649	362382014	DRY CLEANER	036	0	1
0145	842681010	DRY-WALL APPLICATOR	024	0	1
0127	962264010	EDITOR, FILM (MOTION PIC.)	048	0	1
0927	820361014	ELEC-MOTOR-GEN ASSEMBLY	024	0	1
0906	828251010	ELECT SALES SERV TECH	048	0	1
0829	721281014	ELECT-MTR ASSEM & TESTER	048	0	1
0171	629281022	ELECT-PROD-LINE-MAINT-MECH	012	0	1
0905	824281014	ELECTRIC-DIST CHECKER	030	0	1
0330	821361014	ELECTRIC-METER INSTALLER 1	048	0	1
0151	729281014	ELECTRIC-METER REPAIRER	048	0	1
0792	821381010	ELECTRIC-METER TESTER	048	0	1
0149	721281018	ELECTRIC-MOTOR REPAIRER	048	1	1
0652	729684022	ELECTRIC-SIGN ASSEMBLER	048	0	1
0150	729281022	ELECTRIC-TOOL REPAIRER	048	0	1
0132	825261010	ELECTRIC-TRACK-SWITCH MAIN	048	0	1
0155	003161010	ELECTRICAL TECHNICIAN	048	0	1
0154	723381010	ELECTRICAL-APPLIANCE REPAI	036	0	1
0156	827261010	ELECTRICAL-APPLIANCE SERV	036	1	1
0157	729281026	ELECTRICAL-INSTRUMENT REPR	036	1	1
0159	824261010	ELECTRICIAN	048	1	1
0771	825381030	ELECTRICIAN SHIP & BOAT	048	0	1
0158	825281014	ELECTRICIAN WATER TRANS	048	0	1
0160	825281018	ELECTRICIAN, AIRPLANE	048	1	1
0161	825281022	ELECTRICIAN, AUTOMOTIVE	024	1	1
0162	825281026	ELECTRICIAN, LOCOMOTIVE	048	0	1
0643	829261018	ELECTRICIAN, MAINTENANCE	048	1	1
0163	820261014	ELECTRICIAN, POWERHOUSE	048	1	1
0164	823281014	ELECTRICIAN, RADIO	048	1	1
0166	820261018	ELECTRICIAN, SUBSTATION	036	0	1
0167	710281018	ELECTROMECHANICAL TECHNICI	036	1	1
0168	729281030	ELECTROMEDICAL-EQUIP REPR	024	0	1
0137	828261010	ELECTRONIC-ORGAN TECHNICIA	024	0	1
0170	828281010	ELECTRONICS MECHANIC	048	1	1
0169	003161014	ELECTRONICS TECHNICIAN	048	1	1
0570	726281014	ELECTRONICS TESTER I	036	0	1
0967	726367014	ELECTRONICS UTILITY WORKER	048	0	1
0172	974381010	ELECTROTYPER	060	1	1
0138	850663014	ELEVATING-GRADER OPERATOR	024	0	1
0173	825361010	ELEVATOR CONSTRUCTOR	048	0	1
0174	825281030	ELEVATOR REPAIRER	048	1	1
0665	338371014	EMBALMER (PER. SER.)	024	0	1
0704	659382010	EMBOSSER	024	0	1
0684	659682014	EMBOSSING-PRESS OPERATOR	048	0	1
0730	079374010	EMERGENCY MEDICAL TECH	036	1	1
0249	600260010	ENG MODEL MKR INST & APP	048	1	1
0176	625281018	ENGINE REPAIRER, SERVICE	048	0	1
0143	704381018	ENGINE TURNER (JEWELRY)	030	0	1
0782	604280010	ENGINE-LATHE SET-UP OP, TL	030	0	1
0142	604380018	ENGINE-LATHE SET-UP OPERAT	030	0	1
0764	007161018	ENGINEERING ASST, MECH EQU	048	0	1
0705	979381010	ENGRAVER 1	060	1	1
0178	775381010	ENGRAVER GLASS	024	0	1
0146	979281014	ENGRAVER, BLOCK(PRT & PUB)	048	0	1
0806	704381026	ENGRAVER, HAND, HARD METAL	048	0	1
0147	704381030	ENGRAVER, HAND, SOFT METAL	048	0	1
0963	979382014	ENGRAVER, MACHINE	048	0	1
0179	704382010	ENGRAVER, PANTOGRAPH I	048	0	1
0148	979281018	ENGRAVER, PICTURE(PRT&PUB)	120	0	1
0915	651382010	ENGRAVING PRESS OPERATOR	036	0	1
0180	641680010	ENVELOPE-FOLD-MACH AD	036	0	1
0637	637261014	ENVIRONMENTAL-CONTROL-SYST	036	1	1
0165	822381010	EQUIPMENT INSTALLER (TEL.)	048	0	1
0965	019261014	ESTIMATOR AND DRAFTER	048	0	1
0175	971261010	ETCHER, HAND (PRINT & PUB)	060	1	1
0182	971381014	ETCHER, PHOTOENGRAVING	048	1	1
0184	600260014	EXPER MECH MOTOR & BIKES	048	0	1
0183	739381026	EXPERIMENTAL ASSEMBLER	024	0	1
1000	383364010	EXTERMINATOR, TERMITE	024	0	1
0185	557382010	EXTRUDER OP PLASTICS	012	0	1
0833	809381010	FABRICATOR-ASSEM MTL PROD	048	0	1
0187	624281010	FARM-EQUIPMENT MECH 1	036	1	[illegible]
0789	624381014	FARM-EQUIPMENT MECH II	048	0	1
0177	421161010	FARMER, GENERAL (AGRIC.)	048	0	1
0981	421683010	FARMWORKER, GENERAL I	012	0	1
0808	612260010	FASTENER TECHNOLOGIST	036	0	1
0916	828261014	FIELD ENGINEER	030	1	1
0960	193262018	FIELD ENGINEER RADIO & TV	048	1	1
0921	976382018	FILM DEVELOPER	036	0	1
0907	976684014	FILM LAB TECHNICIAN	036	1	1
0908	976381010	FILM LAB TECHNICIAN I	036	1	1
0181	712681018	FINISHER, DENTURE(MED SER)	012	0	1
0535	373364640	FIRE APPARATUS ENGINEER	036	1	1

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0541	373364641	FIRE ENGINEER	012	1	1
0195	373364010	FIRE FIGHTER	036	1	1
0192	373663010	FIRE FIGHTER, CRASH, FIRE	012	0	1
0516	373267010	FIRE INSPECTOR	048	1	1
0754	373364014	FIRE MEDIC	042	1	1
0193	632261014	FIRE-CONTROL MECHANIC	030	1	1
0188	573662010	FIRER, KILN (POTT. & PORC)	036	0	1
0902	379167010	FISH & GAME WARDEN GOV SER	024	1	1
0197	801381014	FITTER (MACH. SHOP)	024	0	1
0189	801261014	FITTER I (ANY IND.)	036	0	1
0198	600380010	FIXTURE MAKER LIGHTING	024	0	1
0190	621381010	FLIGHT-TEST SHOP MECHANIC	060	1	1
0199	864481010	FLOOR LAYER	036	1	1
0202	142081010	FLORAL DESIGNER	012	0	1
0201	622381026	FLR COVER LAYER LOCO CAR	036	0	1
0194	653382010	FOLDING-MACHINE OPERATOR	024	0	1
0026	653360014	FOLDING-MACHINE SETTER	048	0	1
0203	626261010	FORGE-SHOP-MACHINE REPAIRE	036	0	1
0196	611482010	FORGING-PRESS OPERATOR I	012	0	1
0206	860381046	FORM BUILDER (CONST.)	024	0	1
0205	693280010	FORM BUILDER AEROSPACE	048	1	1
0200	619361010	FORMER, HAND (ANY IND.)	024	0	1
0048	575382014	FORMING-MACHINE OPERATOR	048	0	1
0207	011061010	FOUNDRY METALLURGIST	048	0	1
0208	616380010	FOUR-SLIDE-MACHINE SETTER	024	0	1
0204	539362014	FOURDRINIER-MACHINE TENDER	036	0	1
0211	529482010	FREEZER OPERATOR (DAIRY)	012	0	1
0215	730281026	FRETTED-INSTRUMENT REPAIR	036	0	1
0209	620281038	FRONT-END MECHANIC	048	1	1
0922	625281022	FUEL INJECTION SERVICER	048	1	1
0220	783381010	FUR CUTTER (FUR GOODS)	024	0	1
0224	142081014	FUR DESIGNER (FUR GOODS)	048	0	1
0210	783381014	FUR FINISHER (FUR GOODS)	024	0	1
0794	862361010	FURNACE INSTALLER	036	0	1
0678	869281010	FURNACE INSTALLER & REPAIR	048	0	1
0944	512362014	FURNACE OPERATOR	048	0	1
0225	142061022	FURNITURE DESIGNER	048	0	1
0212	763381010	FURNITURE FINISHER	036	1	1
0213	780381018	FURNITURE UPHOLSTERER	048	1	1
0214	783261010	FURRIER (FUR GOODS)	048	0	1
0226	914384010	GAGER (PETROL. PROD.)	024	0	1
0228	670362010	GANG SAWYER, STONE	024	0	1
0917	637261018	GAS APPLIANCE SERVICER	036	0	1
0230	625281026	GAS-ENGINE REPAIRER	048	0	1
0964	862361014	GAS-MAIN FITTER	048	0	1
0331	710381022	GAS-METER MECHANIC I	036	0	1
0232	710381026	GAS-REGULATOR REPAIRER	036	0	1

AMS	DOT CODE	OCCUPATION TITLE	TERM	WS	BAT
0241	602382010	GEAR HOBBER SET-UP OPERATO	048	0	1
0234	602380010	GEAR-CUTTING MACH SET-UP O	036	0	1
0664	602280010	GEAR-CUTTING-MACH SETUP OP	036	0	1
0242	770281014	GEM CUTTER (JEWELRY)	036	0	1
0217	0[illegible]8167014	GEODETIC COMPUTER	024	0	1
0218	772381010	GLASS BENDER (SIGNS)	048	0	1
0219	772681010	GLASS BLOWER	036	0	1
0768	772281010	GLASS BLOWER, LAB APPRATUS	048	1	1
0714	865684010	GLASS INSTALLER AUTO	024	0	1
0243	772482010	GLASS-BLOWING-LATHE OPERAT	048	0	1
0221	865381010	GLAZIER	036	1	1
0222	779381010	GLAZIER, STAINED GLASS	048	1	1
0984	669587010	GRADER (WOODWORKING)	048	0	1
0010	141061018	GRAPHIC DESIGNER	018	1	1
0934	406683010	GREENSKEEPER II	024	0	1
0244	603482030	GRINDER I (CLOCK & WATCH)	048	0	1
0671	603280018	GRINDER OP TOOL PRECISN	048	0	1
0974	603280030	GRINDER SET-UP OP, UNIVERS	048	1	1
0229	632281010	GUNSMITH	048	1	1
0245	783381018	HARNESS MAKER	036	0	1
0248	730281034	HARPSICHORD MAKER	024	0	1
0253	661381010	HAT-BLOCK MAKER (WOODWORK)	036	0	1
0831	667662010	HEAD SAWYER	036	1	1
0233	504382014	HEAT TREATER 1	048	1	1
0257	007181010	HEAT-TRANSFER TECHNICIAN	048	0	1
0947	612361010	HEAVY FORGER	048	1	1
0835	079224010	HOME HEALTH TECHNICIAN	012	1	1
1001	419224010	HORSE TRAINER	012	0	1
0235	418381010	HORSESHOER	030	0	1
0236	040061038	HORTICULTURIST	036	0	1
0943	381684680	HOUSEKEEPER, COM, RES, IND	012	0	1
0783	626381018	HYDRAUL-PRESS SER AMMU	024	0	1
0237	631261010	HYDROELECTRIC-MACHINERY ME	036	0	1
0238	952362018	HYDROELECTRIC-STATION OPER	036	1	1
0239	710381030	HYDROMETER CALIBRATOR	024	0	1
0240	141061022	ILLUSTRATOR (PROFES & KIN)	048	1	1
0016	142061026	INDUSTRIAL DESIGNER	048	0	1
0259	012267010	INDUSTRIAL ENGINEERING TEC	048	0	1
0246	556382014	INJECTION-MOLDING-MACH OP	012	0	1
0941	168167030	INSPECTOR, BUILDING	036	0	1
0968	710381038	INSPECTOR, MECH & ELECTRIC	048	0	1
0992	168287014	INSPECTOR, QUAL. ASSURANCE	036	1	1
0636	601261010	INSPECTOR,SET-UP & LAY-OUT	048	0	1
0775	710261010	INST REPR ANY INDUSTRY	048	1	1
0252	710281030	INSTR TECH LIGHT,HEAT,PWR	048	0	1
0251	600280010	INSTRUMENT MAKER	048	1	1
0254	600280014	INSTRUMENT MAKER & REPAIR	060	0	1

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0644	710281026	INSTRUMENT MECH ANY INDUST	048	1	1
0255	003261010	INSTRUMENTATION TECHNICIAN	048	0	1
0996	711281014	INSTRUMT MECH, WEAPONS SYS	048	1	1
0909	863364014	INSULATION WORKER	048	1	1
0265	142051014	INTERIOR DESIGNER	024	0	1
0270	683662010	JACQUARD-LOOM WEAVER	048	0	1
0258	685381010	JACQUARD-PLATE MAKER	012	0	1
0260	700281010	JEWELER	030	0	1
0261	761381014	JIG BUILDER(WOOD, BOX)	024	0	1
0262	973381018	JOB PRINTER	048	1	1
0263	600380014	JOB SETTER	036	0	1
0264	860381050	JOINER (SHIP & BOAT BLDG.)	048	1	1
0266	563382010	KILN OPERATOR(WOODWORKING)	036	1	1
0273	685360010	KNITTER MECHANIC	048	0	1
0850	689280014	KNITTING-MACHINE FIXER	048	0	1
0267	029361018	LABORATORY ASSISTANT	036	0	1
0269	029261010	LABORATORY TESTER	024	1	1
0268	019381010	LABORATORY TECHNICIAN	012	0	1
0271	408161010	LANDSCAPE GARDENER	048	1	1
0275	761381018	LAST-MODEL MAKER	048	0	1
0272	842361010	LATHER	036	0	1
0691	629261010	LAUNDRY-MACHINE MECHANIC	036	0	1
0554	716381014	LAY-OUT TECHNICIAN	048	0	1
0825	809281010	LAY-OUT WORKER I(ANY IND.)	048	0	1
0274	819281010	LEAD BURNER	048	1	1
0935	781381018	LEATHER STAMPER	012	0	1
0800	201362010	LEGAL SECRETARY	012	1	1
0280	970661014	LETTERER (PROFESS & KIN)	024	0	1
0276	962362014	LIGHT TECHNICIAN	048	0	1
0281	821361018	LINE ERECTOR	036	1	1
0282	822381014	LINE INSTALLER-REPAIRER	048	1	1
0283	821261014	LINE MAINTAINER	048	1	1
0284	821361026	LINE REPAIRER	036	0	1
0279	740681010	LINER (POTTERY & PORC.)	036	0	1
0286	650582010	LINOTYPE OPERATOR (PRINT)	060	0	1
0683	651382014	LITHOGRAPH-PRESS OPER II	048	0	1
0063	972381010	LITHOGRAPHIC PLATEMAKER	048	1	1
0289	709281010	LOCKSMITH	048	1	1
0287	910363014	LOCOMOTIVE ENGINEER	048	1	1
0290	661281010	LOFT WORKER (SHIP & BOAT)	048	0	1
0900	454684018	LOGGER, ALL-ROUND	024	1	1
0299	620281042	LOGGING-EQUIPMENT MECHANIC	048	0	1
0841	683260018	LOOM FIXER	036	0	1
0301	638361010	MACHINE ASSEMBLER	024	0	1
0291	600281022	MACHINE BUILDER	030	1	1
0293	638261014	MACHINERY ERECTOR	048	0	1
0302	628281010	MACHINE FIXER (CARPET&RUG)	048	0	1
0305	689260010	MACHINE FIXER (TEXTILE)	036	0	1
0511	616360018	MACHINE OPERATOR, I	012	0	1
0292	638261030	MACHINE REPAIRER, MAINTEN	048	1	1
0327	649380010	MACHINE SET-UP OPER, PAPER	048	0	1
0958	600380018	MACHINE SET-UP OPERATOR	024	1	1
0938	616360022	MACHINE SETTER	048	0	1
0317	600380022	MACHINE SETTER (CLOCK)	048	0	1
0321	669280010	MACHINE SETTER (WOODWORK)	048	0	1
0659	600360010	MACHINE TRY-OUT SETTER	048	0	1
0296	600280022	MACHINIST	048	1	1
0294	600280034	MACHINIST, AUTOMOTIVE	048	1	1
0295	600280038	MACHINIST, EXPERIMENTAL	048	0	1
0297	627261022	MACHINIST, LINOTYPE	048	0	1
0298	623281026	MACHINIST, MARINE ENGINE	048	1	1
0191	714281018	MACHINIST, MOTION-PIC EQUI	024	0	1
0300	623281030	MACHINIST, OUTSIDE (SHIP)	048	1	1
0303	669380014	MACHINIST, WOOD	048	1	1
0304	222587030	MAILER	048	1	1
0308	638281014	MAINT MECH(ANY INDUSTRY)	048	1	1
0307	629281030	MAINT MECH(GRAIN & FEED)	024	0	1
0022	620281046	MAINT MECH(PETRO, CONST)	048	1	1
0311	899261014	MAINT REPAIRER, INDUSTRIAL	048	1	1
0306	600280042	MAINTENANCE MACHINIST ''	048	1	1
0020	630261010	MAINTENANCE MECH, COMP-GAS	048	0	1
0309	822281018	MAINTENANCE MECHANIC, TELE	042	0	1
0310	899381010	MAINTENANCE REPAIRER, BUIL	024	1	1
0973	861664010	MARBLE FINISHER	024	1	1
0313	861381030	MARBLE SETTER	036	0	1
0946	806261026	MARINE-SERVICE TECHNICIAN	036	1	1
0856	221167014	MATERIAL COORDINATOR(CLER)	024	0	1
0328	019061014	MATERIALS ENGINEER	060	0	1
0316	316684018	MEAT CUTTER	036	0	1
0777	007161026	MECH-ENGINEERING TECHNICN	036	1	1
0318	621381014	MECHANIC, AIRCRAFT ACCESS	048	1	1
0319	620381014	MECHANIC, ENDLESS TRACK VE	048	0	1
0320	621281026	MECHANIC, FIELD & SERVICE	048	1	1
0153	620281050	MECHANIC, INDUSTRIAL TRUCK	048	1	1
0337	620381018	MECHANICAL-UNIT REPAIRER	048	0	1
0751	201362014	MEDICAL SECRETARY	012	1	1
0338	712261010	MEDICAL-APPARATUS MODEL MK	024	0	1
0323	078381014	MEDICAL-LABORATORY TECHNIC	024	1	1
0325	619360014	METAL FABRICATOR	048	1	1
0329	823281018	METEOROLOGICAL EQUIP REPR	048	1	1
0940	025062010	METEOROLOGIST	036	1	1
0332	710281034	METER REPAIRER (ANY IND.)	036	0	1
0333	521662010	MILLER, WET PROCESS	036	0	1
0334	605280010	MILLING-MACHINE SET-UP OP	030	0	1

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0335	638281018	MILLWRIGHT	048	1	1
0350	622381030	MINE-CAR REPAIRER	024	0	1
0354	939281010	MINER I (MINING & QUARRY)	012	0	1
0358	693381014	MOCK-UP BUILDER (AIRCRAFT)	048	0	1
0343	777381014	MODEL & MOLD MKR(BRICK)	024	0	1
0344	777381018	MODEL & MOLD MKR, PLASTER	048	0	1
0339	709381014	MODEL BUILDER(FURN)	024	0	1
0363	693380010	MODEL MAKER (CLOCK & WATCH)	048	0	1
0341	693361010	MODEL MAKER(AIRCRAFT)	048	1	1
0773	709381018	MODEL MAKER(JEWELRY)	048	0	1
0340	777281014	MODEL MAKER(POTTERY)	024	0	1
0780	600260018	MODEL MAKER, FIREARMS	048	0	1
0846	806280540	MODEL MAKER, METAL(AUTO.)	048	0	1
0342	661380010	MODEL MAKER, WOOD	048	1	1
0347	777381022	MOLD MAKER II (JEWELRY)	024	0	1
0346	700381034	MOLD MAKER I(JEWELRY)	048	0	1
0345	777681010	MOLD MAKER(POTTERY)	036	0	1
0116	601280030	MOLD MAKER, DIE-CAST & P	048	0	1
0348	556380010	MOLD SETTER	012	0	1
0349	518361010	MOLDER	048	0	1
0351	693381022	MOLDER, PATTERN (FOUNDRY)	024	0	1
0367	650582014	MONOTYPE-KEYBOARD OPERATOR	036	0	1
0352	861361014	MONUMENT SETTER (CONST.)	048	0	1
0353	779381014	MOSAIC WORKER	036	0	1
0932	850663022	MOTOR-GRADER OPERATOR	036	1	1
0355	623281038	MOTORBOAT MECHANIC	036	0	1
0356	620281054	MOTORCYCLE REPAIRER	036	0	1
0931	616260014	MULT-OPER FORM MACH SET	048	0	1
0369	078362540	MULTI-COMPETENT CLIN ASST	024	1	1
0371	612462010	MULTI-OPERATION-MACHINE OP	036	0	1
0692	824281018	NEON-SIGN SERVICER	060	0	1
1010	011261018	NONDESTRUCTIVE TESTER	012	0	1
0845	609662010	NUMERICAL-CONTROL-MACH OP	048	1	1
0824	355674014	NURSE AIDE	012	1	1
0837	079374014	NURSE, LICENSED PRACTICAL	012	1	1
0359	633281018	OFFICE-MACHINE SERVICER	036	1	1
0537	971381018	OFFSET-PLATE MAKER	048	0	1
0361	651482010	OFFSET-PRESS OP(PRINT & PUB)	048	1	1
0966	862281018	OIL-BURNER-SERVICER & INST	024	0	1
0364	629381014	OIL-FIELD EQUIP MECHANIC	024	0	1
0365	859683010	OPERATING ENGINEER	036	1	1
0250	711381010	OPTICAL-INSTRUMENT ASSEMBL	024	1	1
0032	716280014	OPTICIAN(OP GOODS,RET.TR.)	060	1	1
0377	716280008	OPTICIAN (OPTICAL GOODS)	048	0	1
0370	713361014	OPTICIAN-DISPENSING I	048	0	1
0089	299474010	OPTICIAN-DISPENSING II	024	0	1
0368	007161030	OPTOMECHANICAL TECHNICIAN	048	0	1

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0372	632261018	ORDINANCE ARTIFICER(GOV)	036	1	1
0373	809381022	ORNAMENTAL-IRON WORKER	036	1	1
0374	619260008	ORNAMENTAL-METAL WORKER	048	0	1
0910	788261010	ORTHO-BOOT-SHOE DES MAKER	060	0	1
0911	712381034	ORTHOTICS TECHNICIAN	012	1	1
0458	078261018	ORTHOTIST	060	1	1
0375	712381030	ORTHRODONTIC TECHNICIAN	024	0	1
0378	623281042	OUTBOARD-MOTOR MECHANIC	024	0	1
0380	806281046	OUTSIDE PRODUCTION INSPECT	048	0	1
0384	628261010	OVERHAULER (TEXTILE)	024	0	1
0379	840381010	PAINTER	036	1	1
0383	970381022	PAINTER, HAND (ANY IND.)	036	0	1
0385	840381018	PAINTER, SHIPYARD (SHIP)	036	1	1
0386	970381026	PAINTER, SIGN	048	1	1
0381	845381014	PAINTER, TRANS EQUIP	036	1	1
0389	605382022	PANTOGRAPH-MACH SET-UP OP	024	0	1
0390	841381010	PAPERHANGER	024	1	1
1003	119267026	PARALEGAL ASSISTANT	036	1	1
0543	079374520	PARAMEDIC	024	1	1
0392	979381018	PASTE-UP COPY-CAMERA OPER	036	0	1
0710	781381026	PATTERMAKER(TEXTILES)	036	0	1
0923	754381014	PATTERNMAKER, PLASTICS	036	0	1
0394	693281014	PATTERNMAKER(SPRING)	048	0	1
0796	703381010	PATTERNMAKER(STONE)	048	0	1
0857	693280014	PATTERNMAKER, ALL-AROUND	060	0	1
0395	600280050	PATTERNMAKER, METAL	060	1	1
0396	693281018	PATTERNMAKER, METAL,BENCH	060	0	1
0397	777381030	PATTERNMAKER, PLASTER	042	1	1
0398	661281022	PATTERNMAKER, WOOD	060	1	1
0982	502384010	PEWTER CASTER	036	0	1
0986	700381581	PEWTER FABRICATOR	048	0	1
0983	700281026	PEWTER FINISHER	024	0	1
0987	700381582	PEWTER TURNER	048	0	1
0988	700261010	PEWTERER	024	0	1
0844	074381010	PHARMACIST ASSISTANT	012	0	1
0924	714281022	PHOTO-EQUIPMENT TECHNICIAN	036	0	1
0285	203582042	PHOTOCOMPOSING-PERFORAT-MA	024	0	1
0399	971381022	PHOTOENGRAVER	060	0	1
0400	971381030	PHOTOENGRAVING FINISHER	060	1	1
0401	971381034	PHOTOENGRAVING PRINTER	060	1	1
0402	971381038	PHOTOENGRAVING PROOFER	060	0	1
0405	971382014	PHOTOGRANER, PHOTOENGRAVING	072	1	1
0546	018260580	PHOTOGRAMMETRIC TECHNICIAN	036	0	1
0912	970281018	PHOTOGRAPHER RETOUCHER	036	0	1
0685	972382014	PHOTOGRAPHER, LITHOGRAPHIC	060	1	1
0953	143062022	PHOTOGRAPHER, MOTION PICTU	036	1	1
0403	143062030	PHOTOGRAPHER, STILL	036	1	1

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0563	714281026	PHOTOGRAPHIC EQUIP MAINTEN	036	1	1
0407	714381018	PHOTOGRAPHIC-PLATE MAKER	048	0	1
0408	730281038	PIANO TECHNICIAN	048	0	1
0793	730361010	PIANO TUNER	036	0	1
0387	829381010	PINSETTER ADJUSTER, AUTOMA	036	0	1
0985	638261022	PINSETTER MECH, AUTOMATIC	024	0	1
0411	863381014	PIPE COVER & INS(SHIP,BOAT)	048	0	1
0414	862281022	PIPE FITTER(ANY INDUSTRY)	048	1	1
0417	730281042	PIPE-ORGAN BUILDER	036	0	1
0412	862261010	PIPE-FITTER(SHIP & BOAT)	048	0	1
0388	730361014	PIPE-ORGAN TUNER & REPAIR	048	0	1
0961	570682014	PLANT OPERATOR	036	1	1
0393	559362026	PLANT OPERATOR, FURNACE PR	048	0	1
0404	777381038	PLASTER-PATTERN CASTER	060	0	1
0423	842361018	PLASTERER	024	1	1
0426	601381026	PLASTIC TOOL MAKER	048	0	1
0843	601381030	PLASTIC-FIXTURE BUILDER	048	0	1
0186	754381018	PLASTICS BENCH MECHANIC	024	1	1
0427	659360010	PLATE FINISHER (PRINT)	072	0	1
0430	651362018	PLATEN-PRESS OPERATOR	048	0	1
0431	500380010	PLATER	036	1	1
0432	862381030	PLUMBER	048	1	1
0959	621381022	PNEUMATIC TESTER & MECH	030	1	1
0434	630281010	PNEUMATIC-TOOL REPAIRER	048	0	1
0435	630281014	PNEUMATIC-TUBE REPAIRER	024	0	1
0406	079374018	PODIATRIC ASSISTANT	024	0	1
0437	375263014	POLICE OFFICER I	024	1	1
0901	667682050	PONY EDGER (SAWMILL)	024	1	1
0439	774382010	POTTERY-MACHINE OPERATOR	036	0	1
0440	952382018	POWER-PLANT OPERATOR	048	1	1
0441	625281030	POWER-SAW MECHANIC	036	0	1
0442	821361034	POWER-TRANSFORMER REPAIRER	048	0	1
0443	631261014	POWERHOUSE MECHANIC	048	1	1
0410	828381014	PRECISION ASSEMBLER	036	0	1
0962	706681010	PRECISION ASSEMBLER, BENCH	024	0	1
0277	716382018	PRECISION-LENS GRINDER	048	1	1
0925	627281010	PRESS MAINTAINER	048	0	1
0928	617260010	PRESS OPERATOR HEAVY DUTY	048	0	1
0452	651382026	PRINTER, PLASTIC	048	0	1
0451	659662010	PRINTER-SLOTTER OPERATOR	048	1	1
0679	972281010	PROCESS ARTIST	060	1	1
0913	962167014	PROGRAM ASSISTANT	036	1	1
0949	020167022	PROGRAMER, ENGR & SCIENTIF	048	1	1
0811	020162014	PROGRAMMER, BUSINESS	024	1	1
0413	976381018	PROJECT PRINTER (PHOTOFIN)	048	0	1
0288	651582010	PROOF-PRESS OPERATOR	060	1	1
0415	973381030	PROOFSHEET CORRECTOR (PRT)	048	0	1

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0455	962281010	PROP MAKER (AMUSE & REC)	048	0	1
0456	721281026	PROPULSION-MOTOR & GENERAT	048	0	1
0416	930382018	PROSPECTING DRILLER (PETR)	024	0	1
0376	712381038	PROSTHETICS TECHNICIAN	048	1	1
0418	078261022	PROSTHETIST (PER PROTEC)	060	1	1
0459	822361018	PROTECTIVE-SIGNAL INSTALLE	048	1	1
0006	822361022	PROTECTIVE-SIGNAL REPAIRER	036	1	1
0646	822381018	PRVTE-BRNCH-EXC INST TEL	048	0	1
1006	822281022	PRVTE-BRNCH-EXC REPAIRER	048	1	1
0419	637281010	PUMP ERECTOR (CONST.)	024	0	1
0933	630281018	PUMP SERVICER	036	0	1
0950	914382014	PUMPER-GAGER	036	1	1
0948	162157038	PURCHASING AGENT	048	0	1
0461	551362010	PURIFICATION OPERATOR	048	0	1
0936	701261010	QUALITY-CONTROL INSPECTOR	024	1	1
0462	012261014	QUALITY-CONTROL TECHNICIAN	024	1	1
1007	199167010	RADIATION MONITOR	048	0	1
0465	823261018	RADIO MECHANIC (ANY IND.)	036	1	1
0466	720281010	RADIO REPAIRER (ANY IND.)	048	0	1
0952	193262026	RADIO STATION OPERATOR	048	1	1
0468	199361010	RADIOGRAPHER	048	0	1
0926	194362010	RECORDING ENGINEER	024	0	1
0420	552362018	RECOVERY OPERATOR (PAPER)	012	0	1
0807	620281087	RECREATIONAL VEHICLE MECH	048	0	1
0852	549260010	REFINERY OPERATOR	036	0	1
0666	637261026	REFRIG MECH (ANY IND)	036	1	1
0918	637381014	REFRIG UNIT REPAIRER	036	0	1
0471	801684026	REINFORCING METAL WORKER	036	0	1
0975	821261018	RELAY TECHNICIAN	024	0	1
0687	729281038	RELAY TESTER	048	0	1
0674	630261018	REPAIRER I(CHEM)	048	0	1
0421	701381010	REPAIRER, HANDTOOLS	042	0	1
0997	620381022	REPAIRER, HEAVY	024	0	1
0422	626384010	REPAIRER, WELDING EQUIPMEN	024	0	1
1005	626261014	REPAIRER, WELDING SYS & EQ	042	0	1
0092	976361010	REPRODUCTION TECHNICIAN	012	0	1
0788	002280010	RESEARCH MECH(AIRCRAFT)	048	0	1
0424	719361010	RETICLE INSPECTOR	084	0	1
0472	970381030	RETOUCHER, PHOTOENGRAVING	060	1	1
0474	921260010	RIGGER	036	1	1
0473	806261014	RIGGER (SHIP & BOAT BLDG.)	024	0	1
0475	693281026	ROCKET-ENGINE MECHANIC	048	0	1
0425	621281030	ROCKET-ENGINE-COMPONENT ME	048	0	1
0428	619462010	ROLL THREADER OPERATOR	012	0	1
0795	979681018	ROLLER ENGRAVER HAND	024	0	1
0480	866381010	ROOFER	036	1	1
0481	651362026	ROTOGRAVURE-PRESS OPERATOR	048	0	1

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0429	559381014	RUBBER TESTER (RUBBER GOODS)	048	0	1
0484	733381014	RUBBER-STAMP MAKER	048	0	1
0485	630281030	RUBBERIZING MECHANIC	048	0	1
0433	369384014	RUG CLEANER, HAND	012	0	1
0487	783381026	SADDLE MAKER (LEATHER)	024	0	1
0488	869381022	SAFE & VAULT SERVICE MECH	048	0	1
0753	279357062	SALESPERSON, PARTS	024	0	1
0490	600280054	SAMPLE MAKER, APPLIANCES	048	0	1
0436	785361018	SAMPLE STITCHER (GARMENT)	048	0	1
0491	693380014	SAMPLE-BODY BLDR(AUTO)	048	0	1
0493	673382010	SANDBLASTER, STONE	036	0	1
0495	701381014	SAW FILER (ANY IND.)	048	1	1
0496	601381034	SAW MAKER (CUT. & TOOLS)	036	0	1
0497	633281026	SCALE MECHANIC	048	1	1
0855	972282010	SCANNER OPERATOR	024	0	1
0520	979684034	SCREEN PRINTER	024	0	1
0502	604380022	SCREW-MACH SET-UP OP PROD	048	1	1
0506	604280018	SCREW-MACH SET-UP OP SING	036	0	1
0444	604382014	SCREW-MACHINE OP SINGLE SP	036	0	1
0500	604382010	SCREW-MACHINE OPERATOR MU	048	0	1
0445	201362026	SCRIPT SUPERVISOR(MOT PIC)	018	0	1
0446	807381022	SERVICE MECHANIC(AUTO MFG)	024	0	1
0508	639281018	SEWING-MACHINE REPAIRER	036	1	1
0510	804281010	SHEET METAL WORKER	048	1	1
0513	806381046	SHIPFITTER (SHIP & BOAT)	048	1	1
0979	860381058	SHIPWRIGHT (SHIP & BOAT B)	048	1	1
0514	365361014	SHOE REPAIRER	036	1	1
0812	788381014	SHOEMAKER, CUSTOM	036	0	1
0524	716280541	SHOP OPTICIAN, BENCHROOM	048	0	1
0526	716280540	SHOP OPTICIAN, SURFACE ROOM	048	0	1
0515	785361022	SHOP TAILOR (GARMENT)	048	0	1
0447	979381030	SIDEROGRAPHER (PRT & PUB)	060	0	1
0517	869381026	SIGN ERECTOR 1	048	1	1
0518	970281022	SIGN WRITER, HAND	012	0	1
0942	822281026	SIGNAL MAINTAINER (RR & T)	048	0	1
0519	979681022	SILK-SCREEN CUTTER	036	1	1
0522	700281022	SILVERSMITH(SILVERWARE)	036	0	1
0448	979381034	SKETCH MAKER I (PRT & PUB)	060	0	1
0523	972381018	SKETCH MAKER II (PRINT)	048	0	1
0993	806381054	SKIN FITTER	048	1	1
0525	625281034	SMALL-ENGINE MECHANIC	024	0	1
0449	861381034	SOFT-TILE SETTER (CONST)	036	0	1
0450	040261010	SOIL-CONSERVATION TECHNIC	036	0	1
0453	700381050	SOLDERER (JEWELRY)	036	0	1
0527	194262018	SOUND MIXER	048	0	1
0528	829281022	SOUND TECHNICIAN	036	0	1
0530	619362018	SPINNER, HAND	036	0	1
0457	616260018	SPRING COILING MACHINE SET	048	0	1
0532	616280010	SPRING MAKER	048	0	1
0533	619380018	SPRING REPAIRER, HAND	048	0	1
0534	619280018	SPRING-MANUFACTRG SET-UP T	048	0	1
0521	962261014	STAGE TECHNICIAN	036	0	1
0382	142061054	STAINED GLASS ARTIST	048	0	1
0647	822261022	STATION INSTALLER & REPR	048	1	1
0536	950382026	STATIONARY ENGINEER	048	1	1
0460	862361022	STEAM SERVICE INSPECTOR	048	0	1
0785	651382030	STEEL-DIE PRINTER	048	0	1
0463	970381038	STENCIL CUTTER	024	0	1
0538	974382014	STEREOTYPER	072	0	1
0467	637281014	STOKER ERECTOR-AND-SERVICE	048	0	1
0539	771281014	STONE CARVER	036	0	1
0017	673382018	STONE POLISHER	036	0	1
0312	700381054	STONE SETTER (JEWELRY)	048	0	1
0470	674662010	STONE-LATHE OPERATOR	036	0	1
0542	771381014	STONECUTTER, HAND	036	0	1
0540	861381038	STONEMASON	036	0	1
0545	824381010	STREET-LIGHT SERVICER	048	0	1
0726	971381050	STRIPPER	060	1	1
0064	972381022	STRIPPER, PHOTOLITHOGRAPHIC	048	1	1
0669	801361014	STRUCTURAL-STEEL WORKER	036	1	1
0553	952362026	SUBSTATION OPERATOR	048	0	1
0366	248167010	SUPERCARGO (WATER TRANS.)	024	0	1
0478	775281010	SURFACE-PLATE FINISHER	024	0	1
0551	018167034	SURVEYOR ASSIST., INSTRUMENTS	024	0	1
0838	891684018	SWIMMING-POOL SERVICER	024	0	1
0801	952362034	SWITCHBD OP(LIGHT,HEAT,PWR)	036	0	1
0558	801361022	TANK SETTER (PETROL PROD)	024	0	1
0559	601280034	TAP-AND-DIE MAKER TECH	048	0	1
0560	720281014	TAPE-RECORDER REPAIRER	048	0	1
0561	842664010	TAPER	024	0	1
0562	199261010	TAXIDERMIST (PROFES & KIN)	036	0	1
0552	822281034	TECHNICIAN, SUBMARINE CABL	024	0	1
1002	379362018	TELECOMMUNICATOR	048	0	1
0951	203582050	TELEGRAPHIC-TYPEWRITER OP	036	1	1
0565	720281018	TELEVISION & RADIO REPR	048	1	.
0566	821281010	TELEVISION-CABLE INSTALLER	012	1	1
0567	601381038	TEMPLATE MAKER	048	0	1
0123	601280038	TEMPLATE MKR, EXTRUSION DI	048	0	1
0972	861664014	TERRAZZO FINISHER	024	1	1
0568	861381046	TERRAZZO WORKER	036	0	1
0483	019161014	TEST TECH (PROFESS. & KIN)	060	1	1
0482	029261018	TEST-ENGINE OPERATOR	024	0	1
0956	029261022	TESTER	036	0	1
0572	822261026	TESTING & REGULATING TECH	054	0	1

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0489	710384030	THERMOMETER TESTER	012	0	1
0971	861664018	TILE FINISHER	024	1	1
0573	861381054	TILE SETTER	036	1	1
0575	550381014	TINTER (PAINT & VARNISH)	024	0	1
0580	007061026	TOOL DESIGNER	048	1	1
0582	701381018	TOOL GRINDER I	036	0	1
0584	601280042	TOOL MAKER	048	1	1
0585	601281026	TOOL MAKER, BENCH	048	1	1
0586	601280046	TOOL-AND-DIE MAKER	048	1	1
0587	007167022	TOOL-DRAWING CHECKER	048	0	1
0765	603280038	TOOL-GRINDER OPERATOR	048	0	1
0588	601280054	TOOL-MACHINE SET-UP OPERAT	036	1	1
0589	620281058	TRACTOR MECHANIC	048	0	1
0590	724381018	TRANSFORMER REPAIRER	048	0	1
0592	620281062	TRANSMISSION MECHANIC	024	0	1
0847	630281038	TREATMENT-PLANT MECHANIC	036	1	1
0595	408181010	TREE SURGEON (AGRIC.)	036	0	1
0805	822361030	TROUBLE LOCATOR TEST DESK	024	0	1
0858	821261026	TROUBLE SHOOTER II	046	0	1
0980	905663014	TRUCK DRIVER, HEAVY	018	0	1
0598	807281010	TRUCK-BODY BUILDER	048	1	1
0014	921663062	TRUCK-CRANE OPERATOR	036	1	1
1004	079167580	TUMOR REGISTRAR	024	0	1
0600	620281066	TUNE-UP MECHANIC	024	1	1
0601	952362042	TURBINE OPERATOR	048	0	1
1021	604280022	TURRET-LATHE SET-UP OPER	048	0	1
0606	780681010	UPHOLSTERER, INSIDE (FURN)	036	1	1
0492	730281046	VIOLIN MAKER, HAND	048	0	1
0612	652662014	WALLPAPER PRINTER I	048	0	1
0494	346361010	WARDROBE SUPERVISOR	024	0	1
0614	955382014	WASTE-TREATMENT OPERATOR	024	0	1
0507	955362010	WASTEWATER-TREATMT-PLANT O	024	1	1
0616	715281010	WATCH REPAIRER	048	1	1
0619	954382014	WATER TRT PLT OP WATER WKS	036	1	1
0001	025267014	WEATHER OBSERVER	024	0	1
0667	651362030	WEB-PRESS OPERATOR	048	0	1
0620	810384014	WELDER, ARC	048	1	1
0622	819384010	WELDER, COMBINATION	036	1	1
0627	819361010	WELDER-FITTER	048	0	1
0498	011261014	WELDING TECHNICIAN	048	0	1
0945	810382010	WELDING-MACHINE OPER, ARC	036	1	1
0629	859362010	WELL-DRILL OPER CONSTR	048	0	1
0544	452364640	WILDLAND FIRE FIGHTER SPEC.	012	1	1
0357	730281054	WIND-INSTRUMENT REPAIRER	048	0	1
0499	827381014	WIND-TUNNEL MECHANIC	048	0	1
0034	183161014	WINE MAKER (VINOUS LIQUOR)	024	0	1
0501	677462014	WIRE SAWYER (STONEWORK)	024	0	1

AMS	DOT CODE	OCCUPATION TITLE	TERM	NS	BAT
0504	616382014	WIRE WEAVER, CLOTH	048	0	1
0633	729281042	WIRER (OFFICE MACH.)	024	0	1
0505	664382014	WOOD-TURNING-LATHE OPER	012	0	1
0919	729281046	X-RAY EQUIP TESTER	024	0	1

EXTERNAL EVALUATION REPORT
STUDENT APPRENTICESHIP LINKAGE IN VOCATIONAL EDUCATION
STATE OF ALABAMA

FY 1989
COOPERATIVE DEMONSTRATION PROGRAM (CFDA No. 84.199A)

AWARD NUMBER V199A90012

AWARD PERIOD: January 1, 1989--June 30, 1990

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External Evaluator

EXTERNAL EVALUATION

STUDENT APPRENTICESHIP LINKAGE IN VOCATIONAL EDUCATION

I. INTRODUCTION

The Alabama State Department of Education has completed an eighteen month cooperative demonstration program funded by the U.S. Department of Education. The project was funded for a total of $526,419, for eight specific objectives; with $198,758 of the total committed from local funds.

The external evaluator for the project was Dr. James W. Selman, Coordinator of Extension and Public Service at the Center for Vocational and Adult Education, Auburn University. (See Appendix for resume of the external evaluator). The evaluator has no present involvement with the State Department of Education or with the local school systems involved in the project.

During the on-site visits, the evaluator and the project director discussed activity objectives, both internal and external evaluation strategies, milestone time chart,the level of objective attainment, program strengths and/or weaknesses, recommendations for program improvement, and future project activities.

II. PROJECT ADMINISTRATION

The project director Dwight Williams had responsibility for the coordination of the project. His work included: working with local school systems to promote the program; assisting with the identification of potential employers and students; conducting in-service meetings with local teachers, counselors, and administrators; conducting meetings with the Apprenticeship Linkage Steering Committee and the State Technical Committee on apprenticeship training; assessing student progress; visiting local apprenticeship programs; executing agreements between employers and State Department of Education; making progress reports to the Steering Committee, the State Technical Committee, local BAT officials, and the State Department of Education; and making presentations concerning the program at state, regional, and national meetings.

The Apprentice Linkage Steering Committee assisted in the implementation of project activities. The committee met periodically to provide general coordination and to assist with the project activities. (See Appendix B for a listing of Steering Committee members).

The project at the local level was coordinated through existing programs and personnel. Vocational coordinators worked with students, parents, teachers, counselors, administrators and employers in day-to-day program operations. Coordinators visited job sites on a regular basis to: insure that the quality of on-job training meet the requirements as indicated in the placement agreement; identify related instructional needs of students; assist employers with paper work associated with the project; and serve as a liaison between the school and its community.

III. PROJECT EVALUATION

External evaluation of the Student Linkage project involved six progressive steps: (1). Defining the Purpose and Scope of the Evaluation; (2). Specifying the Evaluation Questions; (3). Developing the Evaluation Design and Data Collection Plan; (4). Data Collection; (5). Data Analysis; and (6). Findings, Conclusions, and Recommendations.

Defining the Purpose and Scope

Defining the purpose of the evaluation was accomplished by a thorough review of the funded project application. The application identified eight evaluation objectives and states that data will be collected and analyzed to address specific questions associated with each objective. They are as follows:

OBJECTIVE: 1. Demonstrate a model for coordination between schooling and employment to minimize training time and optimize preparation for high technology occupations.

Has a working model been demonstrated?
Has the model been committed to paper sufficiently for transportability?

OBJECTIVE: 2. Provide a source of skilled workers for occupations which will have high demand and low supply in the workforce of the year 2000.

How many participants entered the workforce full time?
Do the occupations in which the students apprentices are training correspond to high demand and low supply occupations as identified by the state employment service or Bureau of Labor Statistics (BLS)?

OBJECTIVE: 3. Provide a mechanism for the significant involvement of community agencies and industry in the public education delivery system?

Do industry representatives and community agencies believe that they have been significantly involved in the educational program?
To what extent has industry impacted the in-school preparation program?

OBJECTIVE: 4. Enable employers, especially small businesses and industries, to participate in the development of apprentices without prohibitive costs.

How many employers participated in the program?
How many of the employers are small businesses?
How many participated because part of the training cost was provided?

OBJECTIVE: 5. Provide a means for students to receive training on state-of-the art equipment without requiring excessive capital outlay by schools.

How many students received training?
How many students received training on how many pieces of equipment that was not available in the school?

OBJECTIVE: 6. Increase the efficiency of preparing a skilled work force by providing early entry of students into apprenticeship programs.

How many students moved into full time apprenticeship programs?
How many students received apprenticeship credit for skill training received before the student-apprenticeship training?
How many students entered the student-apprentice phase of the program?

OBJECTIVE 7. Facilitate the entry of minorities, women and other target groups into apprenticeship programs for high technology occupations.

How many minorities were encouraged to enter the program?

How many minorities participated in the program?

How many were successful?

How many women were encouraged to enter the program?

How many women participated in the program?

How many were successful?

How does the participation rate of women and minorities in this program relate to the participation rates in local industries?

OBJECTIVE 8. Provide employers opportunity to assess student skills and potentials prior to major commitments of full apprenticeship salaries and permanent employment.

How many employers completed assessments on students to ascertain potential for apprenticeship?

The scope of the evaluation was limited to those geographic areas of the state that had participated in the Linkage project of no less than one year (5 first year programs and 9 second year programs were included).

Specifying the Evaluation Questions

A detailed review of the project application provided additional statements relative to program operational procedure that needed to be addressed in the evaluation process. These statements were identified, questions formulated, and sources of data collection examined. This process resulted in the development of four questionnaires to be used in the evaluation process. Each questionnaire collects data from a different target audience (current linkage students, former linkage students, employers, and coordinators.

Developing the Evaluation Design and Data Collection Plan

The data sources included the following: current linkage students (Appendix C), former linkage students (Appendix D), coordinators (Appendix E), and employers (Appendix F).

The data collection approaches included; data based upon questionnaires from the different target audiences, site visits to employers place of business, site visits to vocational laboratory pre-apprenticeship linkage training programs, site visits to coordinators related classrooms, and personal interviews (with former students, current students, job supervisors, vocational teachers and coordinators).

The third party evaluator developed and field tested the questionnaires. The project director made arrangements with the local systems for on-site visits. The local coordinator intern made arrangements with the employers participating in their apprenticeship linkage program for the on-site visits.

The data collected by questionnaires was collected according to the follow plan; the project director distributed the questionnaires to the coordinators for distribution to the current participants and employers; the completed questionnaires were mailed to the third party evaluator; former students were mailed their questionnaire along with a self addressed and stamped envelope from the third party evaluator; structured interview questions were asked by the evaluator while on site visits.

Data Collection

Data collection followed the procedure as indicated in the data collection plan. Proper record-keeping and filing practices were used to insure that data were not lost or misplaced. Standardized procedures were followed to reduce data contamination.

The evaluator made no attempt to collect date through a second mailing of the questionnaire to non-respondence to the first mailing. Site visits to employer were limited to a judgement sample to include: small businesses; minority businesses; non-traditional apprenticeship occupational areas; high skilled and technical occupations; and employers with several participation apprenticeship linkage students.

Interviews conducted while on site visits were conducted based upon a set of predetermined questions. The responses to the questions weren't recorded in the presents of those being interview.

Data Analysis

I. Questionnaires

A. Students Currently Enrolled (1990)

The number of students responding to the questionnaire by occupational areas are found in Table 1.

Table 1 Current Students (1990 School Year)

OCCUPATIONAL AREA	NUMBER of STUDENTS
Printing	2- students
Machinist	10- students
Electrician	9- students
Heating and Air Cond.	2- students
Welding	2- students
Auto. Body	1- student
Electrical Lighting	2- students
Child Care	1- student
Legal Sect.	1- student
Electronics	1- student
Sheet Metal	1-student
Construction (Signs)	1- student
Plumbing	1- student
TOTAL	36- students

Returns indicated that all thirty-six were currently employed. The majority (92%) of the students are working for the same employer they began the linkage program with.

When asked about their plans to continue in the apprenticeship after they graduate from high school, 78% indicated they planned to continue. In the analysis of the data it was noted that; occupational areas that have been traditionally associated with an apprenticeship type training program appear to have more holding power for continuing into a full time apprenticeship.

When asked about the job presently held by the students, 53% have the same job as when originally hired; 25% have received promotions; none had been demoted; and 22% are working at a different job but at the same level as their original job.

Fifty six percent of the students indicated they had received an hourly pay raise since started in the program; 44% are receiving the same rate of pay per hour as when the began the program; and no student has experienced a reduction.

When asked if they are receiving medical benefits coverage from their employer 28% indicated they are receiving such benefits.

Forty-seven percent stated, that after working on the job for a year, they were very satisfied with the vocational training they received as juniors in their vocational laboratory classes. Fifty percent indicated that they were satisfied, only 3% indicated they were dissatisfied with the training.

When asked if they were satisfied with the on-the-job training component of the program, 58% responded as being very satisfied, 36% were satisfied, and 6% were dissatisfied.

Ninety-seven percent of the students indicated they would recommend the apprenticeship linkage program to other students.

When students were asked to identify the person that first told them about the linkage program, vocational teachers were identified in 81% of the cases, 11% by another students, 6% by guidance counselors and 3% by an employer.

Sixty-four percent indicate they like their present job very much, 31% indicate they like the job somewhat, and 6% stated they neither like nor dislike it.

When asked about discrimination against any program participant, students indicated they were unaware of discrimination.

The open ended questions tended to indicate that students were very satisfied with their vocational training. Several ways to improve the in-school component of the training were suggested. These include the following: several students indicated a need to have had more and higher levels of mathematics taught; and the electrical and air conditioning students expressed a need to have more experiences on industrial and commercial equipment. No changes or suggestions were made for the related component of the program.

B. Former Apprenticeship Linkage Students 1989)

Forty former students were mailed questionnaires. The instrument was mailed with a stamped self addressed envelope to the participating employers address. Twenty questionnaires (50%) were returned; eleven by students and nine were returned by the employers marked no longer employed and address unknown.

When asked to indicate if the student was employed by the same or a different employer from the one they had during the linkage program 64% indicated they were with the same employer and 36% were with another employer. One hundred percent of those returning the instrument are currently employed and 91% been employed continuously since participating in the program..

Forty percent of the students are continuing their participation in the apprenticeship program.

Student responses (81%) indicate they are working at different jobs than those they were originally hired to perform; 36% have been promoted and 45% have a different job they consider to be a lateral move.

When asked if they were being paid more per hour than when they began to work after completing the linkage program 82% indicated they were making more and 18% are receiving the same rate per hour.

Seventy three percent indicated they were presently receiving medical benefits coverage from their employer.

The majority of the students are satisfied with the vocational training they received in high school during their junior year; 36% very satisfied, 36% satisfied, 9% very dissatisfied, and 18% did not respond.

When asked how satisfied they were with the related instruction received during their senior year as a part of the apprenticeship linkage program 91% were positive in their response (27% very satisfied, 64% satisfied, and 9% very dissatisfied). The same general feelings were expressed concerning the related instruction students are now receiving (27% very satisfied, 45% satisfied, 9% very dissatisfied, 9% not receiving any such instruction, and 9% not responding to the question).

Forty five percent of the students indicated they liked their present job very much, 27% like it some what, 18% have neutral feelings about their like or dislike of the job, and 9% dislike their present job.

One hundred percent of the students indicated they would recommend the apprenticeship linkage program to others.

When asked if they were currently enrolled in any school, educational or vocational training program other than the related instruction as required by the Bureau of Apprenticeship and Training 91% of the students indicated they were not.

Student response to the open ended questions would indicate that some students feel that; no changes are needed in the vocational training being provided before a student is enrolled into the linkage program (100% indicated this); the senior year related instruction could be improved if coordinators were more involved with student progress reviews; and the apprentice ship related instruction needs better follow-up of apprentice progress.

C. Coordinators Response

Fourteen of the seventeen apprenticeship linkage coordinators returned their questionnaires; this response represents 67% of the current students in the evaluation's study population.

In response to a question asking the coordinators about their perceptions of the project, 93% indicated that the program had provided a New and Different kind of bridge between skill training programs in secondary schools and jobs in the local community.

When asked if they were provided an orientation workshop conducted by the state for those to be involved in the project, 93% stated they were. Seventy-eight indicated the workshop prepared them to conduct a quality program and 14% did not respond to the question.

Ninety-three percent of the coordinators indicated they were already employed by a local educational agency and that the linkage responsibilities were an additional assignment/responsibility. All respondents indicated they served as the liaison between the school and the cooperating employers.

When asked to indicate if recommended students were screened for approval by the prospective employer 79%, of those responding, indicated they were; while only 14% indicated they were screened by an apprenticeship committee; (43% of the coordinators did not respond to this question).

Eighty-six percent of the coordinators indicated selected participants were assessed for appropriate skills and knowledge before they were selected to participate in the program; 14% indicated they were not screened.

Seventy-nine percent of the coordinators indicated they had on file a training plan for each apprenticeship linkage student; 21% do not have a training plan.

When asked about the employers involvement in the development of the training plan 71% indicated they were involved; 28% indicated they were not.

Fifty percent of the coordinators indicated that reviews and revisions had been made in student training plans; 21% were not sure if this had occurred. Changes in related instruction was linked to the changes made in the plans in 50% of the cases and 50% were not sure it was.

Coordinators indicated that 81% of last years linkage students were selected to continue on in the apprenticeship program; 68% of them chose to do so. Coordinators anticipate that about 90% of this years linkage students will have a desire to continue with the apprenticeship program.

The majority of coordinators (79%) indicated career guidance and counseling opportunities have been provided to tenth and eleventh grade students; 71% indicated parents were provided an explanation of the linkage program prior to the development of a student's four year educational plan.

All coordinators stated that to their knowledge, no participant was discriminated against in any phase of the program.

A summary of the open-ended questions indicate that the coordinators responding to the survey instrument feel that the major weaknesses of the program were:

(a). Lack of enough qualified students to take advantage of the program.

(b). Additional travel funds for coordination were not provided.

(c). Employers want students to have more theory but students on-the-job are in class only 4 hrs./week.

(d). Age limit- cannot satisfy some employers requirements.

(e). The amount of extra paper work is excessive.

(f). Certain forms are not well designed and do not have space for needed information.

A summary of the open-ended questions indicate the coordinators see the major strengths of the program as:

(a). Gives the employer a incentive to hire and train students.

(b). Motivates students to make a career choice.

(c). Allows students to more effectively use senior year because credit counts toward apprenticeship training.

(d). Affords school the opportunity to present the best students in a positive manner.

(e). Benefits the student by giving them a head start and the employer by giving them a good employee.

(f). Attracts a high quality of student and allows them to participate in meaningful career opportunity.

(g). The program opened new opportunities for the student, the school, and vocational programs.

D. Participating Employers

Eighty-three employers were mailed questionnaire to solicit information about their perceptions of the apprenticeship program and their experiences with the students employed by them through the program. Thirty-six or 43% of the employers returned the instrument; those that were returned, provided data on 40% of the students under investigation by the third party evaluator.

When asked about student job status, 54% of the students are working in the same position as originally employed, 22% had received job promotions, 10% were working at a different job within the business which was considered to equal to the job originally hired for, and 15% of the students were no longer employee by the original employer. Of those students still employed by their original employer, 47% were receiving a higher hourly rate of pay as compared to their original rate.

When asked to compare the student to other individuals at the same job level, employers rated 65% of the students as having average job skills and 35% as above average.

The majority of employers (97%) indicated the student's english skills were sufficient to perform their current job; 97% indicated that English was a necessary skill for advancement with their company.

Ninety-seven percent of the employers stated that the math skills possessed by participating students were sufficient and 9% questioned the student's level of math skills necessary for advancement in the company.

In a comparison between other individuals at the same job level, employers rated the student's work attitude as being above average in 62% of the cases and 38% as average.

When asked, how satisfied with the student's work 53% of the employers indicated they were very satisfied and the other 47% responded as being satisfied.

The majority of the employers (68%) had not participated in an apprenticeship program before; of the 32% that had participated before 90% of the programs were registered training programs.

II. On-site Interviews

On-site interviews were conducted at 33 (52%) of the businesses included in the study. These businesses account for 67% of the current students included in the study population.

When asked if they would have participated in the program if funds had not been available to assist the employers with the cost of training 94% indicated that they would not have. The majority 55% indicated the program had proven itself to the extent, that if at all possible, they would continue to take in new apprenticeship linkage students even without support. It should be noted that those not needing help in starting and/or continuing the program tended to be larger companies or those with a past history in working with apprenticeship programs.

On-site, student interviews were conducted with a sample representing 15% of the first year students and 10% of the second year students.

During on-site visits, students were observed working on high tech equipment such as: CAM, CAD, word processor, and etc. It was noted that all students were wearing appropriate clothing and safety apparel. Safety rules and practices were being followed.

When students were asked to explain what they were working on, all students could give a detailed and clear explanation.

Students expresses a sense of pride and pleasure in their work. Most indicated their feelings of appreciation toward the program and their employers. All stated the experiences had been very valuable to them and contributed to their career objectives: this was true even of those that did not plan to continue on in the apprenticeship program.

Selected participating area vocational schools and high schools were visited to observe the kinds of training facilities and equipment that was available for occupational instruction during the student's junior. The Academy of Precision Arts, a facility used to train adult apprentices, was also visited. These visits to the educational facilities provided a basis to make a comparison between the kinds and levels of technical equipment, machinery, tools, and learning experiences provided by employers through OJT and the experiences that is provided through in school training experiences. A summary of sample size for on-site interviews and observations is presented in Table 2.

Table 2 On-Site Interviews and Observations

	NUMBER	% of TOTAL
EMPLOYERS	33	40%
1990-STUDENTS	14	13%
1989-STUDENTS	4	10%
HIGH SCHOOLS & AREA VOCATIONAL-TECHNICAL	8	44%

Findings, Conclusions, and Recommendations

Findings

OBJECTIVE: 1. Demonstrate a model for coordination between schooling and employment to minimize training time and optimize preparation for high technology occupations.

Has a working model been demonstrated?

Yes, a workable model was demonstrated. This is evidenced by the state of Alabama providing $350,000 of state funds to continue the project for FY 1991-92. To date thirty new companies have expressed an interest in participating in the linkage program. Several of the companies represent multi placement opportunities on a state wide basis (e.g., Alabama Power, Sears, K-Mart AAMCO Transmissions, Alabama Forestry Industry). New local programs are planned and will begin next school year in numerous communities in Alabama. Other states have requested and received information and presentations to designed to assist them to duplicate the program in their states.

Has the model been committed to paper sufficiently for transportability?

Yes, the model has been committed to paper sufficiently for transportability. Several states have expressed interest in using the Alabama model to begin an apprenticeship linkage program within their school systems; the project director has made presentations and corresponded with them about the model and its use. The Alabama legislature has provided state funds to continue and expand the linkage program into additional school systems.

OBJECTIVE: 2. Provide a source of skilled workers for occupations which will have high demand and low supply in the workforce of the year 2000.

How many participants entered the workforce full time?

Seventy-eight percent of the current year's linkage students that responded to the questionnaire, indicated they planned to continue on with the apprenticeship program. The third party evaluator is not sure all of these students will continue on as planned. However, it is safe to assume (based upon information obtained from teachers, coordinators, and employers) that the vast majority of these students will not continue with their formal education through other programs. Thus they will enter the workforce. As of June 30, 1990 no program participant desiring to work, was known to be unemployed. Students most often indicated they planned to continue to work for their present employer for the foreseeable future. Students realize the benefits of entering the workforce as an apprentice and receiving credit toward their journeyman's certification. Student interviews and responses from the survey instrument, indicated the program contributed to their education in a meaningful way: this was true for students that had chosen to continue in an apprenticeship as well as those not choosing to continue.

Do the occupations in which the students apprentices are training correspond to high demand and low supply occupations as identified by the state employment service or Bureau of Labor Statistics (BLS)?

Yes, the occupations in which the vast majority of the linkage students received their training are in high technical areas (air conditioning/refrigeration, automotive body repair, automotive mechanics/technician, electrical, electronics, machinist, medical, and welding) correspond to high demand and low supply occupations.

OBJECTIVE: 3. Provide a mechanism for the significant involvement of community agencies and industry in the public education delivery system?

Do industry representatives and community agencies believe that they have been significantly involved in the educational program?

Yes, based upon information obtained from interviews with employers and coordinators these groups have been involved. This involvement has resulted in a number of positive changes. These include: new doors have been opened for students to enter the apprenticeship training before they finish high school; coordinators have exposure and access to new and different kind of cooperative training job settings; vocational occupational laboratory teachers have made additional contacts with local industry and are more positive about future local job placement opportunities for their qualified students; small employers are benefiting from the program by receiving help with additional cost associated with OJT, and can compete more competitively when bidding on jobs and contracts; and the number of apprenticeship programs among businesses and industries in the geographic area have been impacted by the project.

To what extent has industry impacted the in-school preparation program?

The training needs of the industries participating in the project are better understood by the local schools. This is a result of visits by project staff, vocational teachers, student apprentices, and school boards. The support of industry helped the Alabama state legislature to fund the program for FY 1991-92. Lines and avenues for communications between the in-school phase of the program and business and industry has been improved.

OBJECTIVE: 4. Enable employers, especially small businesses and industries, to participate in the development of apprentices without prohibitive costs.

How many employers participated in the program?

Eighty three employers participated in the study program population (programs in other locations within the state began at the end of the second year of the project and were not included in the evaluation process).

How many of the employers are small businesses?

Thirty businesses responded to the question asking them to indicate the total number of individuals they employed. The number ranged from a high of 72 to a low of 2; the mean was 20 employers for the businesses answering the question.

How many participated because part of the training cost was provided?

On-site interviews with employers indicate that 94% would not have participated in the project if some of the cost associated with the on-the-job had not been provided for by the grant. The number of small businesses and the level of skills required to perform the job tasks would tend to suggest that these types of employers may be reluctant to employ high school age students. Once the employers have participated in the program the less important grant funds become (55%

indicated that _if at all possible_ they would continue to take new apprenticeship linkage students even if grant funds were not available). Helping the employers with authorized training cost does open new doors for high school age students and does serve as an incentive for small businesses to participate.

OBJECTIVE: 5. Provide a means for students to receive training on state-of-the art equipment without requiring excessive capital outlay by schools.

How many students received training?

One hundred and forty six students participated and received training as a result of the project (40 students in 1989-89 and 106 students in 1989-90).

How many students received training on how many pieces of equipment that was not available in the school?

It is safe to say, all students received some training on equipment that was not available in the school setting. The third party evaluator did not attempt to determine the number of pieces of equipment that was not available in the schools; the evaluator did observe, while conducting on-site visits, the kinds and technical quality and quantity of equipment being used by students to be state-of-the art. Students were observed and interview while performing technical tasks on highly technical equipment such as; personal computers, computer assisted drafting (CAD), computer assisted machining (CAM), electronic automotive test equipment, electronic testing and instrumentation devices. Observations of job site locations revealed that the employers participating in the linkage program have high tech operations and are using the modern processes and equipment.

OBJECTIVE: 6. Increase the efficiency of preparing a skilled work force by providing early entry of students into apprenticeship programs.

How many students moved into full time apprenticeship programs?

As of June 30 ,1990 (ending date of the project) the records in the office of the Alabama State Director for the Bureau of Apprenticeship and Training in Birmingham don't indicate the number of 1989-90 students that had moved into full time apprenticeship programs. This is due to the overlapping of the time that students were still include as linkage students and the beginning of their participation as full time apprentices. Data for the first year of the project (1988-89) indicates that as of June 30, 1990; 29 or 73% of the first years linkage students are still participating as full time apprentices. Based upon data collected during the project evaluation, it is anticipated that the percentage of students will increase sightly for second year program participants.

How many students received apprenticeship credit for skill training received before the student-apprenticeship training?

Students were not awarded credit for skill training before the student linkage program began. The program allowed all apprenticeship linkage students to receive apprenticeship credit for skilled training they received; before they became linkage students credit was given for the vocational skills training they received as high school juniors, and after they became linkage students credit was given for on-the-job training and related instruction. Not all students chose to exercise this option. Some students chose not to participate in the next phase of the apprenticeship program; the option was available to them.

How many students entered the student-apprentice phase of the program?

One hundred and forty six students participated and received training as a result of the project (40 students in 1989-89 and 106 students in 1989-90).

OBJECTIVE 7. Facilitate the entry of minorities, women and other target groups into apprenticeship programs for high technology occupations.

How many minorities were encouraged to enter the program?

No accurate account of the numbers of minorities that were encouraged to enter the program is available. The third party evaluator approached this question from the stand point of attempting to determine if any vestiges of discrimination was evidenced at any point in the selection process. Based upon information obtained through interviews and written questionnaires (minority students, vocational teachers, coordinators, and employers) all students that met the requirements of being a quality student (academic and vocational), with at least one year or more of training in an apprenticeship training area, and were capable and willing to complete an apprenticeship training program were encouraged to enroll in the linkage program.

How many minorities participated in the program?

Of the 146 students participating in the two year project 5 were black females, and 10 minority males (8 black males, 1 American indian, and 1 hispanic) students participated in the program.

How many were successful?

Based upon information obtained from employers, coordinators, and students; minority students were as successful in the program as non-minority students.

How many women were encouraged to enter the program?

No accurate account of the numbers of women that were encouraged to enter the program is available. The third party evaluator approached this question from the stand point of attempting to determine if any vestiges of discrimination against women were evidenced at any point in the selection process. Based upon information obtained through interviews and written questionnaires (female students, vocational teachers, coordinators, and employers) all female students that met the requirements of being a quality student (academically and vocational), with at least one year or more of training in an apprenticeship training area, and were capable and willing to complete an apprenticeship training program were encouraged to enroll in the linkage program. The number of female students enrolled in high school vocational programs that are traditionally associated with apprenticeship programs are not presently evidenced in large numbers. Those associated with the project made an effort to expand the opportunities for females apprentices; this is evident by including medical, sectorial, and child care employment on-job apprenticeship training stations. It was also noted that local school systems are continuing to provide guidance and counseling activities designed to inform all students of non-traditional gender employment opportunities and to reduce sex bias in occupational programs.

How many women participated in the program?

Fifteen percent of the students participating in the apprenticeship linkage program were females.

How many were successful?

Based upon information obtained from employers, coordinators, and students; female students were as successful in the program as non-minority students.

How does the participation rate of women and minorities in this program relate to the participation rates in local industries?

Information supplied by the Alabama State Director for the Bureau of Apprenticeship and Training in Birmingham indicates that as of June 30, 1990 a total of 2,340 apprentices (this includes the linkage students) registered with that office, of that number 86 were female, 14 were black female, and 276 were minority males. The apprenticeship linkage project had 146 students; 15% of these were females, of which 23% were black females, and 8% of the males participating in the project were minority males.

Based upon a comparison of the numbers of minority students participating in the apprenticeship linkage program, with the numbers of minorities registered with the state office of apprenticeship, it indicates that the participation rate of women and minorities in this program relate extremely well to the participation rates in local industries.

OBJECTIVE 8. Provide employers opportunity to assess student skills and potentials prior to major commitments of full apprenticeship salaries and permanent employment.

How many employers completed assessments on students to ascertain potential for apprenticeship?

All employers had access to assessment information to assist them to determine a student's potential before the student began the apprenticeship linkage program. The relationship of the employer working with the coordinator, to change students or replace any student that did not working out for the employer, appears to have worked well. Thus, providing employers the opportunity to make continual assessment potential for apprenticeship.

Conclusions

The external evaluator concludes that at the end of the project: all project objectives were met; these objectives were met on or before target dates; and the level of performance on all objectives was outstanding; federal dollars were invested and spent wisely in the apprenticeship linkage program; and that the project enabled the state of Alabama to develop and implement a program that would not have been possible in the foreseeable future without these federal funds. The success of the project is reflected by the Alabama legislature providing $350,000 of state funds to continue the project for FY 1991-92

Recommendations

The external evaluator recommends; that the progress and program developed under this project be continued. That the model be demonstrated in other states.

Appendix A
Resume of Third Party Evaluator

PROFESSIONAL VITA

I. James W. Selman, Coordinator of Extension and Public Service Vocational and Adult Education, Auburn University

II. Earned Degrees

Institution	DegreeMajor
Manatee Junior College	A.S. Architectural & Building Construction Technology Graduated Cum Laude
Florida State University	B.S. Industrial Arts Education
Florida State University	M.S.Vocational Technical
Florida State University	Ed.D.Vocational Technical

III. Employment History (by job titles)

A. Non-Educational Experience

Automotive Mechanic, Bradenton, Florida, 1950-54
Manager of Motel, Tallahassee, Florida, 1956-57
Chemist, Florida State Department of Agriculture, Tallahassee, Florida, 1957-60

B. Employment in Education (by job titles and years)

1. Lively Technical School, Tallahassee, Florida

   Related Math and Science Teacher, 1960-61

   Adult Education (Math & History), Night Program, 1960-63

   Guidance Counselor, 1961-62

   Vocational Administrator for Adult Distributive and Business Education, 1962

   Day Trade Coordinator (Assistant Principal), 1963

   Vocational Administrator (Principal), 1963-64

2. Auburn University, Auburn, Alabama

   Assistant/Associate, Professor - Dept. of Vocational-Technical and Practical Arts Education, Auburn University, Auburn, Alabama, 1964-69

3. Alabama State Department of Education

   Liaison Officer for Occupational Research Center, Assistant to State Director for Vocational Education, 1969-70

   State Director for Vocational Education, State of Alabama, 6/70-7/70

4. Auburn University, Auburn, Alabama

   Associate Professor, Department of Vocational-Technical and Practical Arts Education, 1970-71

5. University of South Florida, Tampa, Florida

   Associate Professor and Coordinator of Trade & Industrial Education, Department of Adult and Vocational-Technical Education, 1971-74

6. Manatee Junior College, Bradenton, Florida

   Project Director of the Career Education Consortium Project, 1974-77

7. University of South Florida, Tampa, Florida

   Professor, Department of Adult and Vocational-Technical Education, 1977-79

8. Manatee Technical School, Bradenton, Florida

   Director of a CETA Project, STIP, 1979-81

9. University of South Florida, Tampa, Florida

   Professor, Department of Adult and Vocational Education, 1981-83

10. Auburn University, Auburn, Alabama

    Coordinator of T & I Program (1983-84), Coordinator of Extension and Public Services (1985-present), Center for Vocational and Adult Education

IV. Selected Examples of Professional Experiences and Activities

A. Southern Association of Colleges and Schools, Atlanta, Georgia

Board of Trustees, 1984-87
President of the Association, 1985-86
President elect, 1984-85
Past President, 1986-87

Committee Assignments with the Association include:

Nominating, 1986
Council of Presidents, 1987-88
Executive, 1985-87
Annual Meeting Planning, 1988

B. Southern Association -- Commission on Occupational Educational Institutions (COEI)

Commissioner, 1979-84
Chairperson, Standards Committee, 1983-85
Nominating Committee, 1981-84
Annual Review Committee, 1984-85
Workshop Presentations at annual meetings on Standards, 1983-85
Served as a Team member or team leader for 16 visiting teams throughout the Southeast

C. Administrative Responsibilities for State and/or Federal Grants

1. Experiences in Florida

a. University of South Florida

Grant "Practical Arts for Elementary Teachers." (1971)
"Industrial Education Development."
"Automotive Assessment and Dissemination Grant." (1973) (This later became the V-TECS Project with the Southern Association of Colleges and Schools)
"Automotive Assessment and Dissemination Grant." (1974)
"Florida Evaluation Project" (1973-1974)
"Occupational Competency Testing Center for Florida" (1973)
"A Comprehensive Program of Vocational Education for Career Development, K - University" (1974-1975) (1975-1976) (1976-1977)
Ten Vocational Teacher Workshops Proposals Developed, Funded and Directed, 1972-1983

b. Manatee Junior College

Assistance Provided in Development of Other Funded Grants, 1976, 1977; Cooperative Education Program Grant
Manatee County Mini Grant (1977); Vocational Guidance
Developed and directed the following grant for FY 1976-1977:
"Coordinating Council Grant" (ongoing since

"Drug Abuse Grant"
"Research and Development Planning Grant"

c. Manatee Vocational-Technical Center

STIP Grant (Directed) (FY 1979-1980)
Video cassette tapes of E.S.L. activities for Indochinese refugees (developed project) (FY 1979-1980)
Youth Conservation and Community Improvement Program: 1980,1981
PIC Program: 1980
Title VII Special Needs Project: 1980-1981
Skills Training Improvement Program Directed FY 1979-1980

2. Alabama Experiences

a. Auburn University

Directed two Statewide Vocational Rehabilitation Conferences,
January 1966 and March 1967

Directed two Regional Vocational Rehabilitation Conferences,
Grant No. VRA 66-36, March 1966 - April 1967

Developed and directed grants for Vocational Rehabilitation, Manager and Evaluation Project, 1966-67

Employee Training Program - Alabama Gas Corporation (Extramural Program No. 347-8), 1968

Co-author of proposal for national institute held at Auburn on "Modifying Programs of Vocational Education to Meet the Changing Needs of People in Rural Areas"

V. Publications

Only the most recent publications (1986-90) are listed (numerous others can be identified upon request)

Baker, Richard A. and Selman, J. W., An Assessment of Competencies Needed by Educational Administrators in Alabama with Implications for Professional Development Programs, National Center for Research in Vocational Education, Ohio State University, Columbus, Ohio; ERIC, CE 044 167, 1986.

Bowman, H. L., Puckett, G.; Selman, J. W., A Process for Reviewing and Revising Accreditation Standards in Occupational Education National Center for Research in Vocational Education, Ohio State University, Columbus, Ohio; ERIC, CE 044 166, 1986.

Selman, J. W., and Wilmoth, J. N., Professional Development Needs of Part-Time Technical College Instructors, National Center for Research in Vocational Education, Ohio State University, Columbus, Ohio: ERIC, CE 045 443, 1986.

Bowman, H. L., Selman, J. W., Puckett, G., Institutional Accreditation Standards: Basis for Quality Assurance of Occupational Education Programs, Occupational Education Forum, North Carolina State University, 1987.

Selman, J,W. An Articulation Model For Advanced Placement of Students in Technical Colleges National Center for Research in Vocational Education, Ohio State University, Columbus, Ohio; ERIC, ED 286028, 1988.

Selman, J.W.,and Wilmoth, J.N., Articulation \practices and Problems Perceived by Vocational Personnel in Selected Secondary and Postsecondary Institutions, Journal of Studies in Technical Careers, Southern Illinois University, Carbondale, Illinois; Volume XI Number 1 Winter 1989.

Selman, J.W., and Wilmoth, J.N., Technical College Administrator's Perceptions of the Staff Development Needs of Part-Time Instructors, Occupational Educational Forum, Virginia Tech, Blacksburg, Virginia; Volume 18, Number 1, Fall 1989.

Selman, J. W., Stress In Perspective for Community/ Junior College Presidents, ERIC Clearinghouse for Junior Colleges, University of California, Los Angeles, CA.; ED 316 284, July 1990.

Selman, J. W., "Why Must I Teach Academic Content?", Vocational Education Journal, American Vocational Association: Alexandria VA., September 1990, Volume 65, Number 5.

Selman, J.W., Stress and the Community/ Junior College Presidency, Community College Review, North Carolina State University, Raleigh, North Carolina; Volume 18, Number 2, Fall, 1990.

VI. Professional Papers Presented

Numerous papers have been presented at local, state, and regional conferences. These are too numerous to list individually; topics include Vocational Rehabilitation, Vocational Education, Career Education, Special Needs, Apprenticeship Programs and Motivational Programs for Teachers.

Appendix B
Steering Committee

STEERING COMMITTEE

Student Apprenticeship Linkage
In
Vocational Education

Mr. Robert E. Dodson
Vocational Administrator
Huntsville Center for Technology
2800 Drake Avenue
Huntsville, AL 35805
Phone: 532-3086

Mr. Charles Findlay
Vocational Supervisor
Birmingham City Board of Ed.
410 13th Street South
Birmingham, AL 35213
Phone: 583-4625

Mr. Mike Bradford
Bradford Electric Co., Inc.
920 Windchester Rd.
Huntsville, AL 35811
Phone: 859-3413

Mr. Al McCcullough, Business Agent &
Apprenticeship Coordinator of Brick
Layers & Allied Crafts of Local #1
P. O. Box 320237
Birmingham, AL 35232
Phone: 595-3264

Mr. Joe Causey
Academy of Precision Arts
201 Industrial Parkway
East Gadsden, AL 35903
Phone:

Dr. Dennis Phillips
Academy of Precision Arts
201 Industrial Parkway
East Gadsden, AL 35903
Phone:

Mr. Phillip Fields
Industrial Training Coordinator
Etowah County Vo-Tec School
105 Burke Avenue, S.E.
Attalla, AL 35954
Phone: 538-3312

Mr. Troy Sellers
Owner of Troy's Honda Parts
P. O. Box 85
Cottondale, AL 35453
Phone: 556-7321

Mr. Jack White
Vocational Administrator
Tuscaloosa City AVC
1300 37th St., E.
Tuscaloosa, AL 35401
Phone: 759-3649

Mr. William D. Fox
Alabama State Director
U.S. Department of Labor
Bureau of Apprenticeship and Trng.
Berry Building - Suite 102
2017 2nd Avenue, North
Birmingham, AL 35203
Phone: 731-1308

Dr. Stephen B. Franks
State Director
Vocational Education Services
State Department of Education
887 State Office Building
Montgomery,AL 36130
Phone: 261-5198

APPROVED: Wayne Teague
Wayne Teague
State Superintendent

Appendix C
Questionnaire for Current Linkage Students

Name:____
Address:____
____

Follow-up Survey of CURRENT Apprenticeship Students
(STUDENTS GRADUATING FROM HIGH SCHOOL IN 1990)

THANK YOU FOR YOUR HELP !

THE INFORMATION YOU GIVE ON THIS FORM WILL NOT USED TO IDENTIFY YOU AS AN INDIVIDUAL, IT WILL BE COMBINED WITH THE INFORMATION PROVIDED BY OTHERS BEFORE BEING USED.

1. Are you currently employed?

______yes
______no
If no, have you been employed in your apprenticeship occupation at any time since participating in the apprenticeship linkage program? _____yes ______no

2. Who do you work for? (COMPANY/FIRM)

3. Is this same or different employer from the one you had when you enrolled into the apprenticeship linkage program?
__________same ________different

4. Do you plan to stay in the apprenticeship program after you graduate form high school?
yes____ no___

5. Have you been employed continuously since participating in the apprenticeship linkage program?
yes __ no __

6. Is your current job: (select only one)

A. Same as when originally hired _______

B. A promotion from original job _______

C. A demotion from original job ________

D. Different job, but neither a promotion nor a demotion _______

7. Are you being paid more per hour, less per hour, or the same as when you enrolled into the apprenticeship linkage program?

More _______

Less _______

The Same ___

8. Do you receive medical benefits from your employer?

yes____
no ____

9. How satisfied are you now after working on a job for a year with the with the vocational laboratory training you received in your junior year.

very satisfied _______

satisfied _______

dissatisfied ________

very-dissatisfied _____

10. How satisfied are you with the related instruction you received during your senior year as a part of the apprenticeship linkage program?

very satisfied _______

satisfied _______

dissatisfied ________

very-dissatisfied _____

11. How satisfied are you with the on-the-job training you are receiving now as a part of your apprenticeship program?

very satisfied _______

satisfied _______

dissatisfied ________

very-dissatisfied _____

12. Would you recommend the apprenticeship linkage program to other students ?

yes ___
no ___

13. Who first told you about the apprenticeship linkage program?

Another student ____
Guidance counselor ___
Vocational Teacher ___
Employer _____
Some other person ________

14. How satisfied are you with your present job?

Like it very much _____

Like it somewhat _____

Neither like it nor dislike it _____

Dislike it somewhat ____

Dislike it a lot ____

Why?
____
____
____

15. What changes in the apprenticeship program do you suggest to improve it in the future?

A. In the vocational training before enrolling into the program:
____
____
____

B. Related instruction:

The portion taken during your senior year
____
____
____
____
____
____
____

Appendix D
Questionnaire for Former Linkage Students

Follow-up Survey of FORMER Apprenticeship Students
(STUDENTS GRADUATING FROM HIGH SCHOOL BEFORE JUNE 30, 1989)

Name:____
Address:____
____

1. Are you currently employed?

______yes
______no
If no, have you been employed in your apprenticeship occupation at any time since participating in the apprenticeship linkage program? _____yes ______no

2. Who do you work for?

3. Is this same or different employer from your the one you had during your participation in the apprenticeship linkage program?
__________same ________different

4. Are you still participating in the apprenticeship program?
yes____ no___

5. Have you been employed continuously since participating in the apprenticeship linkage program?

6. Is your current job: (select only one)

A. Same as when originally hired _______

B. A promotion from original job _______

C. A demotion from original job ________

D. Different job, but neither a promotion nor a demotion _______

7. Are you being paid more per hour, less per hour, or the same as the first job you obtained after your participating in the apprenticeship linkage program?

    More _______

    Less _______

    The Same ___

8. Do you receive medical benefits from your employer?

    yes____
    no ____

9. How satisfied are you now after graduating from high school and out working with the vocational training you received in your junior year.

    very satisfied _______

    satisfied _______

    dissatisfied ________

    very-dissatisfied _____

10. How satisfied are you with the related instruction you received during your senior year as a part of the apprenticeship linkage program?

    very satisfied _______

    satisfied _______

    dissatisfied ________

    very-dissatisfied _____

11. How satisfied are you with the related instruction you are receiving now as a part of your apprenticeship program?

    very satisfied _______

    satisfied _______

    dissatisfied ________

    very-dissatisfied _____

12. Would you recommend the apprenticeship linkage program to others?

    yes ___
    no ___

13. Are you currently enrolled in any school, educational or vocational training program other than the related instruction as required by the Bureau of Apprenticeship and Training?

    yes ___
    no ___

14. How satisfied are you with your present job?

    Like it very much _____

    Like it somewhat _____

    Neither like it nor dislike it _____

    Dislike it somewhat ____

    Dislike it a lot ____

    Why? ____
    ____
    ____

15. What changes in the apprenticeship program do you suggest to improve it in the future?

    A. In the vocational training before enrolling into the program
    ____
    ____
    ____

    B. Related instruction

    1. The portion taken during your senior year
    ____
    ____
    ____

    2. The portion you receive after graduation from high school____
    ____

Appendix E
Coordinator's Questionnaire

COORDINATORS NAME ____

NAME of SCHOOL ____

DATE _____________________,1990

COORDINATORS RESPONSE FORM

(PLEASE SEE IMPORTANT ON THE LAST PAGE BEFORE YOU BEGIN)

1. Do you feel that the project has provided a NEW and DIFFERENT kind of bridge between skill training programs in secondary schools and the jobs in your community ?
YES___ NO ___

2. Was an orientation workshop conducted by the state for those to be involved in the project's operations (Steering Committee, local program coordinators, superintendents of local educational agencies, representative of employees and state staff) ?
YES __ NO __ If yes please list dates and locations of meetings. ____
____
____
____
____

3. Did the orientation workshop prepare you to conduct quality programs ?
YES __ NO __

4. Have you been designated by your local educational Agency as the apprenticeship linkage program coordinator?
YES __ NO __
Were you already employed by the educational agency and given this as an additional assignment/responsibility? YES ___ NO ___

5. Are you, as the local program coordinators, and the Apprenticeship representatives serving as the liaisons between the school systems and the cooperating employers in implementing the program? YES __ NO __

6. Have selected students in your system's vocational programs been invited to participate in the program?
YES __ NO __

7. Do all of the students that have been selected from your system, to participate in the project, meet the selection criteria as stated in the project? YES __ NO __ NOT SURE __

8. Were recommended students screened for approval by the employer and by the apprenticeship committee?
The employer YES __ NO__
The apprenticeship committee YES __ NO __

9. Has every student, from your system, that meets the criteria and desires to enroll into the program been allowed to enrolled into the apprenticeship linkage program?
YES __ NO __ DON'T KNOW __

10. Were selected participants assessed for appropriate skills and knowledge before they were selected? YES __ NO __
If they were, How? ______________________________________
____

11. Has credit toward the student's apprenticeship program been granted by the BAT ? YES __ NO __ NOT SURE __

12. Are student-Apprentice's working part-time in a cooperative education type schedule? YES __ NO __

13. Has the hourly wage pay scale been subject to an increase after six months ? YES __ NO __ NOT SURE ___

14. Is cooperative education credit being provided by the local school systems to program participants? YES __ NO__
If NO, What kind of credit is being given? ________________

15. What standards are being used to insure student safety and quality instruction? ______________________________________
____
____

16. Is student progress and grades determined by a cooperative assess involving the school and the employer? YES __ NO __

17. How often do you visit each student at their job location ?
____
____

18. When you visit a student on-the-job, what is your procedure?
____
____ __

19. Do you have on file a training plan for each apprenticeship student? YES __ NO __

20. Were the employers or their representatives involved in the development of these training plan? YES __ NO __
If they were asked to respond to questions about the plan, do you feel that they could do so intelligently?
YES __ NO __ I DON'T KNOW __

21. Have reviews and revision been made on each student's training plan? YES __ NO __

22. If the answer to the above question was YES, has the related instruction been linked to the needs identified by the training plan reviews? YES __ NO __

23. If training plans are used, have training plans been used to select instructors for related instruction? YES__ NO__N/A __

24. If you are in a Metropolitan area with more than one local educational agency involved in the project have memorandum of agreements been developed and signed by each participating school system? YES __ NO __ N/A __

25. Do your records indicate that each student apprentice has received an equivalent of four hours per week of related instruction? YES __ NO __ NOT SURE __

26. Is the Related Instruction being delivered in accordance with the apprenticeship standards, the students employer, the student's training plan (if a plan is being used); and is being verified by you as the coordinator? YES __ NO __

27. How many student-apprentices are continuing or plan to continued with their employer as apprentices after high school graduation ?
Last year # _______ out of #______
N/A did not have program last year ____
This year #________ out of #______

28. How many of those becoming full time apprentices would you expected to complete the FULL apprenticeship program to become journey persons in their skill area? ______
What would be the main reason you would postulate as to why some would not finish the program ? I GUESS IT WOULD BE
____
____
____.

29. What assessment data was obtained and made available to assist students in the decision making process?
____
____
____
____

30. Was the OVTIS and the DAT administered to each ninth grade student in local educational agencies participating in the project? YES __ NO __ NOT SURE __

31. Have students, preparing to enter grades ten or eleven, (whose interest and aptitudes are congruent to careers in one of the high skills occupations for which training programs are available in the system) been provided career guidance and counseling opportunities? YES __ NO ___
If they have, by whom? ______________________________________
____

32. Was an explanation of the linkage program given to students and their parents prior to the development of the student's four year educational plan? YES __ NO __
If so. by whom ? ______________________________________

33. What are the special emphasis activities that were directed toward identifying and counseling female and minority students into the apprenticeship linkage program?
____
____
____
____

34. What, when, where and how is remedial instruction being provided to students identified as needing basic skills in communications, math or science to help them qualify for the program ? ______________________________________
____

35. Have local educational agencies, that don't offer vocational programs for a particular apprenticeship occupation developed memorandum of agreements with secondary or post-secondary institutions to provide the skill training for students in phase one (Vocational Laboratory Offerings) ?
YES __ NO __ N/A __

36. Were students assessed after phase one (vocational laboratory in school experiences) of the program by their vocational teacher and the teacher's craft committee before being recommended to participate in phase two of the program (apprenticeship linkage) ? YES __ NO __

37. During the first six months of the project were students with less than one year of skills training in phase one taken into phase two of the program?
YES __ NO _ NOT SURE ___

38. Have apprenticeship agreements been developed and signed for all phase two students? YES __ NO __ NOT SURE __

39. Are students in phase two of the project participating in the training program as prescribed in the student-apprenticeship agreement in-terns of:

    a) On-the-job training YES __ NO __
    b) Related instruction (min. 144 hrs) YES __ NO __

40. Has the related instructor been approved by the school system and by the apprenticeship committee? YES __ NO __

41. How many students did you have enrolled in the program?
    A) January 1989 - June 1989 ___________ Total
    B) July 1989 - June 1990 ______________ Total

42. How many students completed the program:

    A) June 1989 ______ Completed
    B) June 1990 ______ Completed

43. What percentage of your completers were selected to continue into phase three (full time apprentices)? ______%

44. What percentage did continue ?
    _______ %

45. Is there anything to indicate of discrimination against any participant? YES ___ NO ___ If yes what ? ________________
    ____
    ____
    ____

46. Has each employer in your program signed a statement of compliance with the on discrimination equal opportunity pledge of the BAT apprenticeship and training standards.
    YES __ NO __ NOT SURE __

47. Have all participating employers and school ascribed to the affirmative action plan in the apprenticeship agreement?
    YES __ NO __ NOT SURE __

48. When you started the apprenticeship linkage program were you provided enough:
    A. Information about the program? YES __ NO __
    B. Assistance to get the program up and running? YES__ NO __
    C. Information about the procedures and forms to be used
        YES __ NO __

49. The major weaknesses of the program you feel are:

50. The major strengths of the program you feel are :

I THANK YOU FOR YOUR HELP!

IMPORTANT NOTE:

THE INFORMATION YOU HAVE PROVIDED WILL NOT BE USED TO IDENTIFY YOU OR YOUR PROGRAM.

THE FIRST PAGE, WITH YOUR NAME ON IT, WILL ONLY BE USED TO MAKE SURE THAT ALL COORDINATORS HAVE RETURNED THEIR FORMS. AFTER ALL FORMS HAVE BEEN RECEIVED, THE FIRST PAGE WILL BE SEPARATED FROM THE FORM TO INSURE NO PERSON CAN BE IDENTIFIED BY NAME OR SYSTEM.

Appendix F
Employer's Questionnaire

EMPLOYER FOLLOW-UP QUESTIONNAIRE

Name of Employee:

Company Name:

Type of Business:

Total number of Employees Employed by Your Company:__________

1. Is the above individual currently employed by you or your company?

   yes ____ (continue with survey)

   no ____ (If no, please make a brief statement as to why the person is no longer employed and stop filling out this questionnaire)

____

____

____

2. Briefly describe this employee"s current job.

____

____

____

3. Is his/her current job:

   Same as when originally hired ____
   Promoted from original job ____
   Demoted from original job with company ____
   Different job, but neither a promotion nor demotion ____

4. Is this employee's hourly wage higher, lower, or the same as when originally hired?

   Higher ____

   Lower ____

   The Same ____

5. Compared to other individuals at the same job level, how would you rate this employee's job skills ?

Above Average ____

Average ____

Below Average ____

6. Is this employee's English language skills sufficient to perform his/her current job?

English language skills are sufficient ____

English language skills are a problem ____

7. Is this employee's Math skills sufficient to perform his/her current job ?

Math skills are sufficient ____

Math skills are a problem ____

8. Does this employee have the English skill necessary to advance at your company?

Yes ____

No ____

9. Does this employee have the Math skills necessary to advance at your company?

Yes ____

No ____

10. Compared to other individuals at the same job level, how would you rate this employee's Work Attitude?

Above Average ____

Average ____

Below Average ____

11. In general, how satisfied are you with this employee's Work?

Very Satisfied ____

Satisfied ____

Some What Satisfied ____

Dissatisfied ____

12. What changes, if any, should the apprentice linkage program make in its training program to enable its trainees to be more valuable to your company?

____

____

____

(Do individuals need more training, if so please be specific as to content needed)

____

____

____

____

13. Has your company participated in an apprentice training program in the past?
Yes____
No ____

If Yes was this a registered training program?
It was _____. It was not ______.

14. What other changes, if any, do you feel should be made in the apprenticeship linkage program?

____

____

____

____

____

15. Please make any other statements you may wish to make about the apprenticeship linkage program.

____

____

____

____

____

____

(Attach additional pages if needed for to complete your comments)

THANK YOU FOR YOUR ASSISTANCE !

The information you have provided on this questionnaire will be presented in a tabular form and the report will not identify you as an individual in any way.